CENTRAL PATENTS INDEX

CLASSIFIED ALERTING BULLETIN

Section D:

FOOD
DETERGENTS

WEEK C46
7 JANUARY 81
80709C - 82630C

Food Science & Technology
Information Service
28 JAN 1981
C.F.T.R.I., MYSORE

ABSTRACTS

INDEXES

- **II - PATENTEE**
- **V - BASIC NUMBER**
- **VII - PATENT NUMBER**

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	27 OCT - 2 NOV 80	882,975 - 883,078
-Non Delayed	3 NOV 80	884,096 - 884,202
BRAZIL	29 OCT 80	7,804,424 - 8,005,269
CANADA	21 OCT 80	1,087,801 - 1,088,250
CZECHOSLOVAKIA	31 JUL 80	7,807,914 - 7,903,314
DENMARK	20 OCT 80	7,804,922 - 8,004,219
E.GERMANY	3+10+17+24 SEP 80	143,546 - 144,145
W.GERMANY		
-DAS	6 NOV 80	1,507,286 - 3,005,080
-OLS	6 NOV 80	2,853,994 - 3,016,994
FRANCE*	22 AUG 80 (BOPI 26 SEP 80)	2,447,134 - 2,447,666
UNITED KINGDOM**	12 NOV 80	1,578,741 - 1,579,230 2,046,061 - 2,046,560
HUNGARY	28 OCT 80	H002,573 - H002,576 T018,912 - T019,005
ITALY	31 JUL + 10 SEP 80	1,046,501 - 1,047,000
JAPAN		
-Unexamined	—	47,007,555 - 55,077,475
	26 SEP - 4 OCT 80	55,125,199 - 55,128,452
-Examined	16 OCT - 22 OCT 80	80,040,121 - 80,041,240
NETHERLANDS	27 OCT - 2 NOV 80	7,811,193 - 8,004,082
NORWAY	20 OCT 80	7,900,928 - 8,002,570
SOVIET UNION	—	723,439 - 726,196
SWEDEN	27 OCT 80	7,900,826 - 8,002,430
UNITED STATES		
-Reissues	28 OCT 80	Re30,423
-Patents	28 OCT 80	4,229,832 - 4,231,116
PCT	30 OCT 80	8,002,223 - 8,002,354

*Printed patents actually published early October - late October, 1980

**Includes 248 specifications omitted from Week C28

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

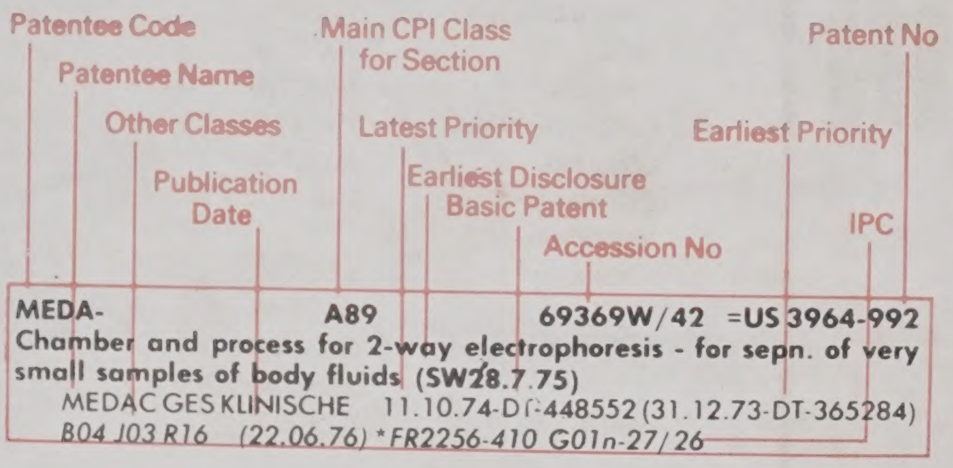
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry
A+	Polymer Applns.
AE	Polymer & General Chemistry
B	Pharmaceuticals
C	Agricultural Chemistry
D	Food, Disinfectants, Detergents
E	General Chemistry
E+	General Chemistry Applns.
F	Textiles, Paper, Cellulose
G	Printing, Coating, Photographic Chemistry
H	Petroleum
J	Chemical Engineering
K	Nucleonics, Explosives, Protection
L	Refractories, Ceramics
M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- **A89** **69369W/42 =US 3964-992**
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11: BAKING

STRA/ ★ D11 C/46 ★CS 7807-920
Control of hot gases fed into baking oven
STRANSKY V 01.12.78-CS-007920
T06 (31.07.80) A21b-01/40

HEBE- D11 59597 R/34 =DS 1967-237
Waffle plates and system for providing a - cooling arrangement
HEBENSTREIT GMBH (HEB -) 31.01.69-DT-904804 (31.01.69-DT-967237)
*(06.11.80) *DT1904-804 A23g-03/20*

A cooling plant for blocks of waffles consists of a conveyor which takes the blocks in clamping frames in a triangular path through a cooling chamber in which cold and dehumidified air is admitted. The frames are automatically squeezed open to receive a new block and are closed afterwards. The frames are moved forward intermittently by a compressed air cylinder which receives a pulse by a proximity switch on the approach of a new block and moves the conveyor by a ratchet mechanism. 31. 1. 69 as 967237 Div. ex. 1904804 (5pp39)

HAYA/ D11 69142 W/42 =DS 2501-446
Appts for rolling out dough - between varying speed conveyor belts and rolls with translatory and rotational motion
HAYASHI T 28.03.74-JA-035390
*(06.11.80) *DT2501-446 A21c-03/02*

Continuous roller squeesing machine for doubh for bread, cakes and other pastry consists of an endless chain carrying the squeeze rollers which runs above the plane where the dough is transported by several belt conveyors in tandem. Conveyors are sepd. from each other by rotary brushes and are flanked by guide rail for the edges of the squeeze rollers. Friction produced results in a delay of the rotation of the squeeze rollers relative to the motion of the dough.

System is a reliable way of preventing breaks in the dough and is suitable even for thin layers of dough. 15. 1. 75 as 501446 (6pp39)

GESN/ ★ D11 81228 C/46 ★FR 2447-147
Bread finger sippets for dipping in softly boiled egg - are cut to pref. size, toasted and packaged for distribution
GESNOUIN A M L 24.01.79-FR-001769
(26.09.80) A21d-13

Bread finger or sippet with a transverse cross-section which has a maximum thickness between 0.5 and 3.0 cm., pref. about 1.0 cm., the pref. length of the sippet being between 5 and 15 cm., partic. about 10 cm. The sippet is pref. dehydrated, e.g. by toasting, so that the prod. has a longer shelf life.

The sippets can be made from a cylindrical stick loaf. Blades cut the loaf on radial planes to produce sippets each in the form of a sector of a cylinder. The original loaf is pref. about 4.0 cm dia. and is cut into 10 cm lengths before dividing into sectors. Used as sippets of toasted bread for dipping into the open top of a soft boiled egg. Obviates the manual task of cutting a supply of sippets, e.g. for a large family. The loaf currently available is frequently unsuitable for the purpose. The sippets can be packaged in sets for individual servings. 24.1.79. as 001796 (8pp448).

FRRR D11 90091 Y/51 =GB 1571-234
Baba type fancy cake - comprising cellular bread allowing greater alcohol impregnation
FERRERO P & CIA SPA 07.06.77-IT-068308 (17.08.76-IT-069028)
*(09.07.80) *BE-857-760 A21d-13/08*

A pastry prod. comprises a portion of sweet bread impregnated with a spirituous sugar-contg.liqueur in amt. ≥ 1 pts. wt. liqueur per 1 pt. wt. of sweetbread, and a coating of chocolate completely enveloping the sweet bread.

The liqueur provides ≥ 35 mls. of ethyl alcohol and ≥ 25g. of sugar per 100g. of sweetbread, and the chocolate contains ≥ 30 wt.% of edible fat. The sweet bread comprises a cellulose structure in which the total area of any apertures through which a cell communicates with its adjacent cells is ≤ 30% of the total internal area of the cell.

The prod. is prepd. as a "pocket cake" (or "tortina"), which may be commercially distributed over long distances and vendable after weeks or months. 14.7.77 as 029720 (9pp931).

SIMC ★ D11 81301 C/46 ★GB 2046-164
Cutting dough sheet into biscuit blanks - between rotating knife and reciprocating backing roll
SIMON-VICARS LTD 03.04.79-GB-011554
X25 (12.11.80) B29c-17

A dough sheet passes beneath a rotary cutter which either perforates or partially cuts the sheet. A downstream cutter comprises a constantly rotating blade and a reciprocating backing roll which periodically presses the dough sheet onto the cutter to completely sever the sheet.

The first and second cutter blades are synchronised. The reciprocation of the backing roll is synchronised with the sheet movement to provide slits at regularly spaced positions.

Dough sheet for the mfr. of cracker biscuits is perforated by the first cutter and severed by the second cutter into units each of several biscuits. Shrinkage of the dough is controlled during baking and afterwards the units are broken along the perforations to form individual biscuits. 3.4.79 as 011554 (5pp295).

POLI- ★ D11 C/46 ★IT 1046-951
Forced circulation bread baking oven - with forced air feed and humidification control
POLIN E C DI SAS 11.04.78-IT-040057
X27 (10.09.80) A21b

ODFO= ★ D11 82031 C/46 ★SU -725-639
Kneading machine process control appts. - using prognosis filter to control yeast output according to mismatch between sample variance and setting
ODESS FOOD IND TECH 29.08.77-SU-523093
T06 X25 (08.04.80) A21c-01

Earlier process control system for kneading machines contains an ingredients feed control loop, comparator, statistical characteristics calculator, setter and regulator. For greater accuracy of control, a yeast sampling control loop is introduced with regulators and a prognostic filter. Accuracy is increased by prognostic control of yeast ingredients feed in accordance with the mathematical expectation and variance of a sensed parameter (e.g. moisture-content). New system may be used for other processes. Donskoi, D. M., Mironov, I. S. Bul. 13/5.4.80. 29.8.77 as 523093 (3pp840)

BAKI= ★ D11 82032 C/46 ★SU -725-640
Dough divider and bread-mould loader - has screw feeder and open measuring compartments plus ejectors and curved plate-covered dough flow channel
BAKING IND RES INST 01.06.77-SU-491422
(08.04.80) A21c-09/08

Installation for dividing dough and loading it into the moulds of the spacing-baking assembly comprises feeder divided into a series of chambers with screw delivery attachments, dividing heads with open measuring compartments, each of which is disposed under the respective chamber of the feeder, and ejectors inside the measuring compartments. Con

-struction is simplified and dividing and loading of dough with increased moisture content is guaranteed, by placing a curved plate under each chamber of the feeder so that it spans the flow of dough. The dia. of each dividing head equals the sum of the width of the mould and the distance between the vertical axes of adjacent moulds.
Ptashkin, V.A., Vul, G.O., Iovnovich, L.S. Bul.13/ 5.4.80. 1.6.77 as 491422 (4pp29)

COMM= ★ D11 82168 C/46 ★SU -725-867
Sandwich-making machine - assembles finished sandwiches by dropping slices through holes in plate offset to stock magazines
COMML MECH ENG RES 24.08.77-SU-522516
P62 (05.04.80) B26d-04/26

Sandwich making machine can cut bread and sausage and is able to stack the three elements of the sandwich into the finished product. The sausage slice is laid offset relative to the two bread slices.

Machine has two bread and one sausage magazines. Slices fall on to a deck and pusher bar slides them relative to the deck and they fall through holes on to non-rotating table from where each assembled sandwich is ejected from the machine by a rotating bar. Pusher can be oscillated to give alternate offset, that is sausage sticking out of bread.
Boryak, S.I., Goldenberg, I.M., Kostilev, Yu.S. et al. Bul. 13/5.4.80. 24.8.77 as 522516 (4pp1465)

STAU ★ D11 82516 C/46 ★US 4230-730
Leavening acid compsn. - comprises potassium modified sodium aluminium phosphate and alkali metal acid pyrophosphate
STAUFFER CHEMICAL CO 19.01.79-US-006420 (12.11.76-US-741265)
E34 (E33) (28.10.80) A21d-02/02 A21d-10/02

Leavening acid compsn. comprises (a) K modified 1:3:8 Na aluminium phosphate, or deriv. prepd. by contacting a slurry of this with a Ca cpd. and granulating the mixt; and (b) a slow alkali metal acid pyrophosphate (I) having a doughnut dough rate of reaction of $<30\%$ CO_2 evolved after 2 mins. and $<35\%$ CO_2 evolved after 10 mins. at 27°C.

Compsn. is useful in canned refrigerated dough mixts. In mixts. contg. $NaHCO_3$, it yields gas at a rate slower than either component used separately. It provides low gas development on mixing but suff gas press. to seal the cans and maintain the seal during refrigeration. Unpleasant pyrophosphate taste is less marked. 19.1.79 as 006420 (9pp955)

MYOJ- D11 86808 A/48 =US 4230-735
Instant noodle prepn. - where steamed noodle line is cooled using cold air prior to drying
MYOJO FOODS CO LTD 29.03.77-JA-034950
*(28.10.80) *J53121-955 A23l-01/16*

Prodn. of quick-cooking noodles comprises mixing a noodle formulation, rolling the mixt. to give a continuous noodle sheet, slitting the sheet into strands, stearing, cutting the strands into a predetermined length, drying and packaging as a clump together with flavouring agents and additives.

The improvement is that the noodle formulation of wheat flour, buckwheat flour and their mixts, salt, egg powder, water and dough conditioner(s) contains starch flour and $\geqslant 1$ edible oil and/or fat. Also after the noodle strands have been steamed and before they are dried, they are cooled at 30-60°C. The starch flour is used in an amt. of 30-40 wt.% based on total flour ingredients.

The edible fat and/or oil is used in an amt. of 0.4-4 wt.% boned on the total wt. of flours. Frying treatment is avoided. 27.3.78 as 890142 (6pp924)

GAUT/ D11 62318 C/36 =WP 8002-224
Baking conveyor tunnel for browning pre-baked loaves of bread - having infrared heaters above and below open mesh conveyor band
GAUTHIER R H 20.04.79-FR-010071
*Q77 (30.10.80) *BE-882-866 +A21b-01/48 A21b-02*
D/S N(JA, SU, US) + E(CH, DT, GB, NL, OE).

An oven for heating and cooking food prods., partic. for the final browning stage of prebaked loaves of bread etc., has a conveyor tocarry the prod. through an open-ended tunnel fitted with heaters, partic. infrared heaters. The conveyor band is of open mesh material or other open work material with a high proportion of open spaces. Radiant heat is able to pass easily through the band. Heaters are installed both above and below the conveyor band.

Used for final bake and browning of prebaked loaves of bread, partic. for retail shops offering 'freshly baked' bread. The oven is more compact and easier to install than previous ovens of similar capacity.
18.4.80. as FR0063 (16pp448).
(F) ISR: US3448678; GB-693878; US3249741; FR2230293.

See Also

D13 GB 2046110

D12: MEAT; FISH PROCESSING

KLAZ/ ★ D12 C/46 ★CS 7902-327
Appts. for rapid cooling of hanging meat
KLAZAR L 05.04.79-CS-002327
(31.07.80) A23b-04/06

DEAK ★ D12 80763 C/46 ★DL -143-556
Chicken flavour concentrates prodn. - by reacting protein hydrolysate-cysteine mono:saccharide meat flavourings with linoleic acid-rich vegetable oil
AKAD WISSENSCHAFT DDR 15.05.79-DL-212883
(03.09.80) A23l-01/23

Chicken flavour concentrates are made by adding a linoleic acid-rich vegetable oil, esp. sunflower oil to a known (esp. beef) meat flavour concentrate and reacting it in, e.g. by stirring for 60-90°C. (esp. 85°C.) for 1-20 mins. (esp. 10 mins.). Pref. the meat flavour starting material is a reaction prod. of a protein hydrolysate, cysteine and monosaccharides.

Modified prods. have a pronounced chicken flavour and are esp. useful for flavouring structured vegetable protein prods., soups, sauces, dietary foods, etc. 15.5.79 as 212883 (8pp513)

SCHR/ ★ D12 80827 C/46 ★DL -143-761
Grease separation plant for meat processing - using heated settling tanks and collection basin
SCHRODER H 19.06.79-DL-213716
X25 (10.09.80) C02f-01/40

A sepn. plant for fat and grease in effluents of abattoirs and meat processing works includes a bar screen, a sludge trap and two alternatively operated settling basins in parallel. The floating constituents are decanted to a collection basin between the two settling basins and extracted from it by pumps into tank cars or trucks when a certain height is reached.

This separator functions reliably and saves labour for its operations. Heating is installed to ensure a continuity of work at all climates. 19.6.79 as 213716 (11pp39)

JAHN/ ★ D12 80912 C/46 ★DL -144-001
Frozen fish fillet cubes cutting machine - with reciprocating, circular disc and revolving cutter blades
JAHN K 31.05.79-DL-213275
P41 (24.09.80) A22c-25/20 B02c-18/06

Frozen food such as deep frozen fish fillet blocks, are cut into cubes for further processing by a reciprocating cutter which severs slices from a block fed to it on an inclined chute. A reciprocating feeder takes the slices to a horizontal spindle with circular cutters which split them into fingers. The fingers are finally cut up into cubes by a revolving four-arm cutter.

Machine produces clean cuts with a min. of breakage or wastage. 31.5.79 as 213275 (10pp39)

UNIL D12 21835 S/12 =DS 2045-988

Dehydrated meat-based food product

UNILEVER NV 17.09.69-GB-045816

*(06.11.80) *BE-756-301 A23l-01/31*

A dehydrated meat prod. is prepd. from a mixt. contg. a comminuted meat and 5-15 wt.% (based on the dry wt. of the mixt.) of a comminuted. Starch contg. vegetable material, which has its cell structure preserved. The mixt. is formed, heated and dehydrated. The vegetable material may be precooked and dehydrated potato granules or rice or barley corn or wheat grits.

The prod. may be used in soup, rice dishes with spaghetti, etc. The prod. is easily rehydrated and has a good appearance. 17.9.70 as 045988 (7pp068)

MEAT= D12 69235 A/39 =DS 2810-855

Enzyme preparation for tenderising meat - by reacting hyaluronidase with serum albumin in aq. soln. and precipitating the prod. with organic solvent (NL 18.9.78)

MEAT IND RES INST 14.03.77-SU-464202

*(D16) (06.11.80) *DT2810-855 A23l-01/31 +C12n-09/36*

Storage-stable, long-acting fermenting formulation to accelerate the ripening of meat prods. is produced by dissolving 4-6 pts. wt. hyaluromidase and 0.5-1.5 pts. wt. serum albumin separately in water at a pH 0.2-2.5, mixing the two solns. to form a suspension, separating the aqs. soln. from the suspended particles, cooling the soln. to 4-6°C, pptg. the end-prod. by mixing 4-10 vols. org. solvent per vol. soln., separating the ppte. and drying it with acetone and then ethanol.

The prod. does not have an unpleasant odour and is made more simply. 13.3.78 as 810855 (4pp922)

CROA/ D12 63417 B/35 =DS 2905-998

Separating the cheek muscles of a pigs head - by clamping on conveyor for wedge prising jaws open (NL 21.8.79)

CROASDELL D F 17.02.78-EI-000349

*(06.11.80) *DT2905-998 A22c-17*

A machine to separate the cheeks from half a pig's head consists of a plate conveyor which carries several plates and rods by which half a pig's head is securely fixed. A stationary wedge-shaped piece faces with its pointed edge the direction of motion of the conveyor and is situated at the height of the cheeks to keep the lower jawbone down and sever the meat, while a bent red retains the upper jawbone.

This recovers useful meat which would otherwise be lost as scrap. 16.2.79 as 905998 (6pp39)

DICK- ★ D12 80998 C/46 ★DT 2916-432

Sausage filling machine - having vent valve in piston and protective cover on front to prevent filling entering valve but allowing air to vent

FR DICK GMBH 24.04.79-DT-916432

(06.11.80) A22c-11/04

Sausage filler has a piston with a vent valve. On the lower surface of the piston a cavity is formed into which is fitted the element of the valve. The element has a stem which is free to move up and down over a limited distance, having an O ring and a flexible cover. The stem passes through a hole in the piston and terminates with a shank of larger dia

This shank seals the opening when the element is down and allows the piston to suck back sausage mixture left in the outlet pipe. When descending, the valve allows air to pass but once in contact with sausage mixture the flexible cover pushes the element up into the cavity and the "O" ring seals it.

Used for manufacture of sausages esp frying sausages. Allows material left in the discharge line to be drawn back into the cylinder, giving tight seal and needing infrequent cleaning. 24.4.79 as 916432(18pp1053)

PUJO/ ★ D12 81229 C/46 ★FR 2447-148

Machine to knot thread around neck of sausage skin etc. - employs simple, robust mechanism synchronising power cylinders and rotary gears

PUJOL Y 25.01.79-FR-002417

Q31 (26.09.80) A22c-11/12 B65b-13/24

The machine comprises an axially displaceable tube into which the neck to be tied is inserted. The tube carries a blade on the external dia. of its leading end to cut thread as the tube is advanced at the start of each cycle.

A spring loaded clamp grips the new end of thread and swings it through two revolutions coaxially around the tube. Automatically synchronised with this rotation of the thread clamp, reciprocating pushers and pivoted guide fingers are actuated to loop the thread into a sliding knot configuration around the tube. The tube is withdrawn as the knot is pulled tight to lock around the neck of the sausage skin.

The thread clamp is pref. attached to the exterior of a cylindrical sleeve which is coaxially rotatable on the tube. The sleeve is pref. rotated by a gear train which also drives a camshaft to operate electric or pneumatic switches which synchronise the other motions of the mechanism.

Used to tie a self-locking knot around the neck of a tubular sausage skin, sachet, etc. 26.1.79. as 002417 (14pp448).

DELS/ ★ D12 81233 C/46 ★FR 2447-153

Stabilising and preserving anchovies stuffing in olives - using extracts of algae or gum or cellulose derivs. as binder (PT 16.6.80)

DELSER GONZALEX C 23.01.79-ES-477068

A97 (26.09.80) A23b-04/12 A23l-01/32

The process comprises (1) washing the anchovies, which are usually in containers between layers of salt, to remove excess salt and dirt. (2) The anchovies are cut into pieces, (3). They are then placed in a mixer and mixed in the presence of tartaric acid with algae extracts, extracts of natural gums, cellulose derivatives or mixtures of these (4). The olives are filled with the treated anchovies. (5). They are washed, packed in a container with an appropriate preserving liquid. (6) After closing the container, it is heat treated.

The additive (3) ensures stabilisation, particularly of the stuffing, whilst avoiding chemical preservatives. 21.1.80. as 001191 (7pp597).

KURE D12 42594 B/23 #GB 1578-865

Removing malodorous basic components from gases - by contact with a support carrying an acid and or a salt

KUREHA KAGAKU KOGYO 28.11.77-DT-752985 (22.11.77-GB-048673)

*E35 (12.11.80) *DT2752-985 B01d-53/34*

Ammonia and/or $\geqslant$1 amine is removed from a gas contg. them by contacting it at $\leqslant$250°C with a substance obtd. by supporting $\geqslant$1 proton and/or Lewis acid on a porous and heat-resistant inorganic carrier.

The proton and/or Lewis acid is used in amt. 1-50 wt.% w.r.t. the carrier. The proton acid is phosphoric acid and/or boric acid or its condensates, vanadic acid, molybdic acid, chromic acid, an arylsulphonic acid or terephthalic acid. The Lewis acid is Ni sulphate, V sulphate and/or Mn phosphate.

Ammonia and/or amines can be removed at very low concns. of flowing gas by the process, and can be esp. used for treating gases exhausted from shell-mould factories. 22.11.77 as 048673 (13pp931).

HOTI/ D12 75936 Y/43 =GB 1578-979

Fixing radial blades on rotary shaft of food chopping machine - with improved security and facility to adjust balance

HOTIMSKY E R L 19.04.77-FR-011758 (24.06.76-FR-019231)

*P41 +P62 (12.11.80) *BE-855-759 B02c-18/18*

Rotary blade is adjustably mounted on a drive shaft by a washer slidable on the shaft and having a spiral arcuate channel for receiving a portion of the blade protruding along the shaft axis. Rotation of the washer moves the portion in the channel to radially displace the blade relative to the shaft. The washer is held on the shaft, e.g. by nuts.

Life of shaft and blade is increased. 23.6.77 as 026350 (8pp1376).

CARA/ ★ D12 C/46 ★IT 1046-715
Hams and salamis washing appts.
CARATTIMI A 18.01.74-IT-019596
(31.07.80) A22c

KOMP= ★ D12 82015 C/46 ★SU -725-065
Automatic control of sausage-type articles heat treatment - involves basing length of processing operations on surface temp. of article
KOMPLEKS BIRD PROC 11.08.78-SU-666421
T06 X25 (30.03.80) G05d-27

For use in meat, fish and poultry processing industries, the method reduces treatment time and weight losses by basing the calculation of duration of drying, preroasting and boiling on the surface temp. of the sausage.

Each stage of the process is terminated when the temp. in the centre of the sausage has reached the required level. The method reduces the processing time by 10-20%, and wt. loss by 10-20%. Expected savings are 10-15 roubles per ton of finished prod.

Karpov, V.V., Brazhnikov, A.M., Rogov, N.A. et al. Bul. 12/30.3.80. 11.8.78 as 666421 (3pp136)

YARO= ★ D12 82033 C/46 ★SU -725-641
Prodn. of beef or pork sausage meat - includes addn. of preliminarily seasoned and cooked rumen to improve flavour and nutrient value
YAROSL MEAT IND MFG 25.08.77-SU-522411
(08.04.80) A22c-11

Sausage stuffing may include comminuted rumen, which is preliminarily seasoned by working into it a spice infusion and then cooked. The rumen is pref. used in an amt. of 50-80 wt.% w.r.t. the total stuffing. Sausage prepd. from this compsn. has high nutrition value, and good taste and aroma.

In an example, stuffing contains 70 kg. of beef rumen, 30 kg. of pork, 2.5 kg. of salt; 2.25 g. of $NaNO_2$ (in the form of a soln.), 100 g. of ground black pepper, and 500 g of fresh garlic (or 50 g. of dried garlic).

Azarkh, Z.Sh., Sviridov, A.I., Kazyanskii, L.Ya. Bul. 13/5.4.80. 25.8.77 as 522411 (2pp70)

MURM= ★ D12 82034 C/46 ★SU -725-642
Fish drying and curing equipment - has means for heating and cooling air, mixing it under controlled temp. conditions and condensing out moisture
MURMANSK GIPRORYBFL 23.12.76-SU-432881
(05.04.80) A23b-04/04

Equipment for dry-curing fish on ship and shore establishments, comprises chamber with which is connected a channel having attachments for air supply, cooling, heating and mixing, plus a temp. sensor. The duration of the process is reduced, as a result of supplying air at the optimal temp. and humidity, by placing the cooling attachment immediately in front of the air-supply attachment, while that for mixing is made as tubes disposed at the exit of the latter. Pref. there are two tubes, fitted with bell-shaped outlets, each of which has a hole in its wall and a gate valve drive and located in front of the inlet to the chamber, with the air-heating attachment at the exit end of bell-shaped outlet.

Vorobei, O.V., Popov, G.M., Nikolaenkov, V.K. et al. Bul. 13/5.4.80. 23.12.76 as 432881 (3pp29)

BAXT/ ★ D12 82316 C/46 ★US 4229-858
Boat mountable fish cleaning tray - with cutting board on bottom and drainage opening in lower end projecting over boat side
BAXTER S M 01.11.78-US-956687
(28.10.80) A22c-25/06

A tray has upstanding sides, a drainage opening, and a cutting board attached to the tray bottom. The tray can be fixed to a boat so that the opening is at the lowest point which is outboard and suspended over the water.

Legs with slotted tops are connected to the tray by manual fasteners and their lower ends can be cut to length to hold the tray in the required working position. The legs are attachable to the boat by L-shaped pieces attached to the legs and each securable to a flat baseplate on the boat by fasteners screwing through the pieces and into the baseplate. 1.11.78 as 956687 (5pp1358)

GAGL- ★ D12 82317 C/46 ★US 4229-859
Formation of ground meat patties - from cylindrical masses flattened by reciprocating press
GAGLIARDI BROS INC 01.05.78-US-901558 (24.11.76-US-744587)
(28.10.80) A22c-07

Meat patties are formed using cylindrical masses of ground meat of uniform wt. The masses are distributed on a continuously moving conveyor and are flattened between the conveyor and a reciprocating member. This forms disc-shaped meat patties which have irregular edges and a thickness of 1/8 to $\frac{1}{2}$ of the length of the cylindrical masses.

Pref. the masses of ground meat are flattened without any appreciable compression or densification of the meat.

The appts. is pref. used commercially to form patties from beef, pork, lamb, poultry or fish. The patties maintain their size and shape after cooking. Meat temp. during the patty formation is less critical than in previously used methods and the size, shape and thickness of the patties are easily controlled. 1.5.78 as 901558 (—pp295)

IRWI/ ★ D12 82318 C/46 ★US 4229-860
Hide pulling station with winding drum - mounted on movable carriage supporting operators while moving along carcass
IRWIN D C 13.12.77-US-860120 (07.02.77-US-766121)
(D18) (28.10.80) A22b-05/16

A hide pulling appts. includes a platform which can be raised to move a pair of operatives along a suspended beef carcass. A horizontal winding drum is attached to the platform and carries chains which are coupled to the hide. The operatives use knives to free the hide from the carcass while the drum pulls it away.

The rate at which the drum rotates and the rate at which the platform is moved along the carcass are adjusted to allow the operatives to devote greater time to the areas where the hide is more firmly attached.

The appts. removes the hide from a beef carcass. 13.12.77 as 860120 (16pp295)

AIRR D12 77653 C/44 =US 4230-732
Poultry chilling process - using separately frozen giblets to maintain temperature of chilled carcasses
AIRCO INC 24.01.79-US-006150
*+Q31 (28.10.80) *GB2045-054 +A23l-01/31 B65b-25*

Poultry are chilled by removing the giblets, and chilling the remainder 32-35°F without freezing; freezing the giblets removed to $\leqslant$28°F and reinserting them into the breast cavity of the chilled poultry to provide refrigeration to the chilled, but unfrozen poultry.

Pref. the poultry is chicken, and the chilling step comprises immersing the chicken in an ice water bath. The frozen giblet- contg. chilled, but unfrozen chickens is packed in cartons without the addn. of water or dry ice.

The shelf life of the prod. is extended to $\leqslant$30 days. 24.1.79 as 006150 (3pp931)

See Also

D13 US 4230738

D13: OTHER FOODSTUFFS

DOLO- ★ D13 80713 C/46 ★BE -883-011
Non-hygroscopic easily grindable cupric sulphate mono:hydrate - trace element additive for animal feed, prepd. by treating penta:hydrate contg. free sulphuric acid with excess alkaline cpd. (HU 28.3.80)
DOLOKEMIA VEGYIPARI 13.06.78-HU-DO0422 (28.04.80-BE-883011)
C03 (28.10.80) A23k-01/17 C01g-03/10

Prepn. of non-hygroscopic, easily grindable. stable copper (II) sulphate monohydrate, comprises (i) neutralising copper (II) sulphate pentahydrate contg. free H_2SO_4 with sodium, potassium or ammonium hydroxide, carbonate or bicarbonate (an 'alkaline cpd.') ; (ii) removing 4 molecules of water of crystallisation by drying for $\geqslant$ 40 mins. at 80-150°C; such that the $CuSO_4.5H_2O$ dissolves in its own water of crystallisation and (iii) treating the resulting liq. with the 'alkaline cpd.' in quantities of 3-20 wt.%, pref. 5-8 wt.%, higher than the stoichiometric quantity of alkaline cpd. necessary to neutralise the free H_2SO_4 in the $CuSO_4.SH_2O$ starting cpd.

The supplementary quantity of alkaline cpd. is calculated w.r.t. the amt. of starting cpd.

Known processes are either costly, unsuitable for industrial scale prodn. or give an unsatisfactory prod., e.g. hygroscopic; difficult to handle etc. The present process is rapid and simple using easily available appts. and is suitable for industrial scale production. The prod. is stable, may be easily ground and may be used in animal feeds without further purification. 28.4.80 as 883011(13pp)

LEWI/ ★ D13 80748 C/46 ★BE -884-194
Dehydration of vegetables to desired water content and activity - involves partial dehydration, then absorption of soln., and opt. more drying
LEWIS V M 11.07.79-AU-009542
(03.11.80) A23b A23l

The dehydration to the desired moisture content and water activity values comprises (a) partial dehydration to remove 20-85% of the moisture; (b) introduction of the vegetables into a soln. contg. a known amt. of solute (defined as salts, sugars, protein hydrolysates, polyols and mixts. of these) so that the soln. is totally absorbed and (c) if necessary, further dehydration.

The prods. are stable, have a higher moisture content than normal dehydrated prods., and have a shorter rehydration time. The rehydrated prods. also have a better taste, texture and colour and are cheaper to produce. 4.7.80 as 88419 4(13pp597)

TRIP/ ★ D13 C/46 ★BR 7902-267
Food product mfr.
TRIPODI A 10.04.79-BR-002267
(29.10.80) A23b-07 A23l-01/21

FREE/ ★ D13 80753 C/46 ★CA 1087-913
Treatment of bananas with oils - to prevent darkening caused by storage at chilled temps.
FREEBAIRN H T 09.09.77-CA-286392
A97 (21.10.80) A23b-07/14

Cell membranes of the cells surrounding the latex-contg. vessels in the underpeel of bananas are swollen as follows the exterior peel of a banana finger is treated with an oily material (I) of viscosity 10-10,000 centistokes at >55°F. for>24 hr. The amt. of (I) used is sufficient to allow it to penetrate below the exterior peel and into the sites of the latex vessel cell membranes to swell these in order to prevent both a phase change in the membranes and an increase in the permeability for the liq. and solutes of the cells surrounding the latex vessels into the latex contained in these vessels.

Treatment allows the latex vessels to be more resistant to temps. in the range 45-55°F, and prevents the characteristic darkening that occurs when the banana is kept at these temps. 9.9.77 as 286392 (11pp478)

MACH/ ★ D13 C/46 ★CS 7900-422
Preservation and fortification of vegetable products
MACHO V 19.01.79-CS-000422
(31.07.80) A23k-03/03

CASS/ ★ D13 80778 C/46 ★DL -143-610
Saccharin purificn. by removal of sulphonamide impurities - esp. ortho toluene-sulphonamide and para sulphamoyl-benzoic acid by dissolving in sulphuric acid, treating with alkali nitrite, etc.
CASSEBAUM H 14.05.79-DL-212848
B02 C03 E13 (03.09.80) C07d-275/06

In the prodn. of substantially sulphonamide-free saccharin crude saccharin contg. variable amts. of sulphonamides (esp. o-toluenesulphonamide and p-sulphamoyl-benzoic acid) is dissolved in concentrated H_2SO_4, treated for a few mins. with the calculated amt. or a slight excess of alkali nitrite at 20-50°C. (pref. 30-40°C.), and subsequently poured into an opt. amt. of water at not more than 40-50°C, the saccharin being pptd.

Used for purification of the sweetening agent saccharin prepd. from o-toluenesulphonamide. Recovery of saccharin is high (96.4-97.25%). Aq. H_2SO_4 resulting from the process is only slightly contaminated with organic substances (chiefly the relatively non-toxic sulphonic acids) and can be used e.g. in the prodn. of Ca superphosphate fertilisers. 14.5.79 as 212848 (9pp280)

GEBH/ ★ D13 80809 C/46 ★DL -143-723
Soft sugar sweets prodn. - by successive cooling, heating, damping, and drying of foamed sugar mass
GEBHARDT E 23.05.79-DL-213069
(10.09.80) A23g-03

Sugar-based sweets with a soft texture are made by converting a plastic deformable sugar mass into a laminated foam structure in the known way and forming conveniently sized pieces for consumption. The pieces are softened in a conditioning tunnel having a number of successive treatment zones comprising (a) cooling, (b) heating, (c) damping, (d) cooling, (e) heating (f) drying and (g) cooling. The temp. after cooling in the 1st and 2nd cooling zones (a) and (d) is $\not>$ 27°C. and pref. < 20°C. The temp. after the 3rd cooling zone (g) is 20-25°C. After the drying stage (f) the temp. is $\not>$ 57°C. The heating and damping (b) and (c) are pref. accomplished with satd. steam in a time of $\not>$ 15 sec. and drying (f) is pref. carried out with warm air at $\not>$ 60% R.H.

The process gives sweets with the desired soft texture, with consistent quality which avoids prodn. losses. 23.5.79 as 213069 (6pp513)

BERN/ ★ D13 80810 C/46 ★DL -143-724
Dry forage prepn. - which combines addition of solid liq. and gaseous constituents to straw in one machine
BERNHARDT G 13.06.79-DL-213568
C03 (10.09.80) A23k-01/14

In a system for the prepn. of dry forage from fibrous substances, mainly straw, the operations necessary for its completion are subdivided into processes of the first and/ or second order, each broken down into several successive steps. These operations are combined to utilize the potential and kinetic energy for transport, mixing and processing, thus requiring only one or two machines.

Arrangement reduces operating costs, specific power and material consumption and also labour. 13.6.79 as 213568 (14pp39)

BLIE/ ★ D13 80856 C/46 ★DL -143-853
Chaff prodn. for cattle fodder - by fine grinding cereal grains and coarse grinding straw before joint pelletising
BLIEMEISTER G 02.02.79-DL-210770
C03 (17.09.80) A23k-01/14

When entire cereals, including grains and straw are ground to chaff for cattle fodder in a hammer mill, the straw should not be ground too fine so that a certain percentage of the grains remains into coarse a state to be digested by cattle. This can be remedied by extracting the grains downstream of the drying drum and by fine grinding them. The straw is exhausted under the main cyclone and is coarse ground in a second hammer mill.

Fine ground grains and coarse ground straw are finally mixed and pelletised. The method saves a considerable annual loss to the national economy by better utilisation of the agricultural produce. 2.2.79 as 210770 (5pp39)

VELW ★ D13 80863 C/46 ★DL-143-867

Prodn. of catalysts for fat hydrogenation - by coprecipitation of nickel, silica and alumina components

VEB LEUNA-WERK W ULBRICH 23.07.79-DL-214538
(17.09.80) B01j-23/74

Prodn. of catalysts for hardening of fats is carried out by coprecipitation of active components and a support, filtering off and washing the ppte., drying, and reducing the prod. in H_2. Coprecipitation is effected by adding an aq. suspension contg. an alkali metal bicarbonate and a water-soluble Si cpd. to an aq. soln. of Ni and Al salts.

Catalysts are esp. useful for margarine mfr. They have higher activity than commercial Ni/kieselguhr catalysts and Ni/alumina catalysts of the type described in DT 2024282 and 2228332 23.7.79 as 214538 (9pp367)

INRG D13 04125 S/02 =DS 2065-974

Milk and milk product treatment in cheese- - making

INST NAT RECH AGRON 18.07.69-FR-024555
*A14 (A15 A97) (06.11.80) *BE-753-000 A23c-19/02*

Cheese is obtd. from a liq. protein-enriched starting prod. that has been obtd. by ultrafiltration of milk or buttermilk and not by sepn. of whey. The ultrafiltration is effected at 1-50 kg/cm^2 through a semipermeable membrane with an average pore size ≤30 mμ.

The liq. starting prod. can be mixed with usual additives and converted immediately into cheese or it can be held at a low temp. and stored or transported to another factory. It may be used to prepare all sorts of cheeses. 17.7.70 as 065974 Div.ex 2035534 (7pp068)

PROC D13 24048 T/15 =DS 2148-626

Coffee extract - by countercurrent extraction with control of temp, pressure and cycle duration

PROCTER & GAMBLE CO 02.10.70-US-077755
*(06.11.80) *BE-773-371 +A23f-05/18*

A coffee extract is obtd. by countercurrent extn. in which the first column is maintained at 70-130°C and a pressure of 0.343-2.403 bar. The cycle time is 5-45 minutes. A vapour and a liq. phase are maintained and the vapour and liq. are extracted from the column, the vapour condensed and the liqs. collected.

Under these conditions the coffee extract has the strength and aroma of percolated coffee. 29.9.71 as 148626 (5pp068)

UNIL D13 33854 T/21 =DS 2156-067

Imitation fruit prepn - from a fruit pulp mixed with an alginate and gelled with calcium ions

UNILEVER NV 16.11.70-GB-054398
*(06.11.80) *BE-775-405 A23l-01/06*

A fruitlike compsn. is made from a mixt. of fruitpulp or similar disintegrated fruit material, an edible acid e.g. citric, malic, lactic or tartaric acid, a soln. such as alginate which can be partly gelled by calcium ions and a Ca salt, e.g. Ca citrate, which only in the presence of acid supplies sufficient Ca ions to cause gelation. The ingredients are mixed rapidly together at gel temp. for ≤30 secs. and then gelation is effected under shearfree conditions.

The structure of the fruit is kept. The compsn. may be used in yoghurt, desserts, etc. 11.11.71 as 156067 (6pp068)

MORG D13 36507 Y/21 =DS 2462-519

Refined lactose prepn. from whey contg. no vitamin - by concn. desalting by electrodialysis, concn. and crystallisation

MORINAGA MILK KK 18.01.74-DT-462519 (09.03.73-JA-027167)
*B02 E13 (06.11.80) *DT2462-519 C13k-05*

Refined lactose is produced from whey (concentrate) by electrodialysis using an ion perm-selective membrane to separate >50% of the ash content. The de-salted whey is concentrated and cooled to convert it to crystallised lactose, which is recovered.

The whey used is pretreated by passing it at < 70°C over a column filled with active carbon obtd. from petroleum or carbon, the granulate having pores of which > 55% are of dia. 40-200Å and a pore vol. of > 1.1 ccm/g. High quality lactose is obtd., suitable for formulation of pharmaceuticals and foods. 18.1.74 as 462519 (3pp913)

SOLL- D13 09621 Y/06 =DS 2534-131

Boiled sugar mass cooling - by passing vertically as S shaped ribbon over cooling roll pairs

SOLLICH & CO GMBH 31.07.75-DT-534131
*+Q75 (06.11.80) *DT2534-131 A23g-03/08*

Confectionery is cooled in a process whereby a thin layer of a hot cooked sugar mass is passed continually over cooling rollers. At least two rollers, driven about a horizontal axis are arranged one above the other and revolving in opposite directions.

The cooling temp., speed of rotation and sugar mass are so tuned to each other that after the sugar mass is delivered to the upper side of the top roller the mass layer loosens itself by gravity from the under side of the top roller and the reverse side is applied to the next cooling roller. Greater cooling is thus achieved.

Confectionery such as toffee may be so treated. 31.7.75 as 534131 (5pp068)

KYOW D13 33772 A/19 =DS 2748-405

Inductively heat treating gelatin - to improve its properties e.g. cold water solubility, and give prod. for use in foods, pharmaceuticals, photography and adhesives

KYOWA HAKKO KOGYO 28.10.76-JA-129700
*B07 G03 (G06) (06.11.80) *DT2748-405 C09h-09*

Water solubility of gelatine with a water-content ≥ 8 wt.% is improved by microwave induction heating until ≥ 35% of the water-content is removed, giving a treated gelatine contg. ≯ 16 wt.% water. The gelatine is used as a raw material for food, confectionery, medicaments, photographic emulsions and adhesives.

Pref. the gelatine has an initial water-content of 10-55 (esp. > 16) wt.% reduced to < 5% after treatment, in which temp. is increased to 80-105°C. The gelatin is in the form of plates, granules, powder, gel or sol., and the heating is effected in the presence of an edible dispersing agent (~10 wt.% of dry gelatine) contg. a flavour improver. Opt. 0.1-5 wt.% of a leavening agent is also included. 28.10.77 as 748405 (12pp913)

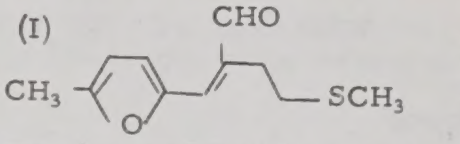
INFL D13 01929 A/01 =DS 2753-971

Augmenting or enhancing aroma or taste of foodstuff - by adding methyl-(methylthio)methyl furan acrolein cpd.

INT FLAVORS & FRAGR INC 22.12.76-US-753462
*E13 (06.11.80) *US4064-279 A23l-01/22 C07d-307/46*

S-methyl-α-[(methylthio)methyl]-2-furan-acrolein of formula (I) is a novel cpd. of exceptional stability used as an organoleptic for foodstuffs (in amts. of ca. 1ppm) and gives them natural "fresh" flavours resembling potatoes, cooked greens and mushrooms. It may be produced by reaction of methionel with 5-methylfurfural in the presence of a base. 3.12.77 as 753971 (7pp)

(I)



FARH ★ D13 80976 C/46 ★DT 2915-762

Alkaloid and lipoid cpd. extn. from ground lupin - with mixt. contg. alcohol or glycol and ammonia and then washing with water

HOECHST AG 19.04.79-DT-915762 (00.00.77-DT-748885)
C03 (06.11.80) A23l-01/20

This is a Patent of Addn ot DT2748885, Crushed or ground oil seeds, esp. lupin seeds, are treated with an extn mixt contg NH_3 or NH_4OH and an organic solvent having formula $R'-(C_nH_{2n})-OR^2$ (I) (where either R' and R^2 are H and n is 1, 2 or 3, or R' is OH and R^2 is H, Me or Et and n is 2 or 3). After separating the extn. mixt., the seed residue is washed with water.

Prods are used as foodstuffs and feedstuffs. Lipoid content can be reduced to 0.1-0.6 wt% and bitter alkaloid content to 2-5% of original quantity. Protein proportion and nutritional value are increased. White, odourless lupin seeds are obtd. almost free from bitterness. NH_3 acts as solvent and also changes flour structure, whereby extn.

ime is lowered. 19.4.79 as 915762 Add to 2748885(11pp)

WESS ★ D13 81009 C/46 ★DT 2916-625
Continuous prodn. of butter - using roller resting on output stream to monitor prodn. rate and control addn. rate of culture and salt soln. additives
WESTFALIA SEPARATOR AG 25.04.79-DT-916625
P13 (06.11.80) A01j-15/12

Butter is produced continuously in a keanding machine to which are fed butter granules from a previous churing process. Salt soln and culture are added to control flavour, preseravation properties and convert the cream to sour cream.

The butter issues as a solid stream from the end of the machine. A small roller rests on its surface and its rate of rotation is used to bromitor the prodn. rate of the butter This signal is then used to control the rate of addn of culture and salt soln.

Gives improved control avoiding discrepancies in dosing the additives which can spoil butter quality esp wrt flavour. Thus gives a more consistant butter quality. 25.4.79 as 916625(8pp1053)

BENC ★ D13 81052 C/46 ★DT 2917-086
Skimmed milk powder and butter fat-contg. food - stabilised with mixt. of mono:sodium phosphate, sodium poly:phosphate and crosslinked poly:phosphate
BENCKISER-KNAPSACK 27.04.79-DT-917086
(06.11.80) A23c-19/08 A23c-23

Stable food prod. is prepd. by heating (A) 20-40 (25-30)wt% skim milk powder, 0-45 (20-30) wt% butter fat and 30-80% water, with, w.r.t dry solids, (B) 2-6% salt mixt of NaH_2PO_4 Na polyphosphate contg. 70% P_2O_5 and a crosslinked polyphosphate having pH 2.9, in ratio 3:4:2, to 80-120(90-110)°C, for 2-20 min., in a standard processed cheese-prodn. apparatus.

Prod. consistency can vary, by adjusting dry solids or fat content, so that the prod can be cut or eaten with a spoon. A stable emulsion is prepd. without further additives. The prod can be stored 3 months at 37°C or 6 months at room temp., without changes in quality. Use of specific phosphate mixt. imparts a mild, clean, fresh, slightly sweet taste. 27,4,79 as 917086(11pp200)

KRPP ★ D13 81095 C/46 ★DT 2918-180
Processing oil-seed or -fruit de-oiling grain residue - by solvent extn., toasting, drying and cooling using fluidised bed reactor
KRUPP F GMBH 05.05.79-DT-918180
C03 (D23) (06.11.80) A23k-01/14

Coarse grains obtd in oil recovery from oil seeds and oil fruit are treated by direct, consecutive solvent extn., toasting, drying and/or cooling. Solvent extn., drying and cooling take place in a fluidised bed. Toasting takes place during grain transport at 90-110°C and grain-water content 10-20 wt%. A treatment plant is also claimed.

The grains can be used as feedstuffs. The process allows good heat-exchange, mixing and protective treatment of grain. 5.5.79 as 918180(22pp200)

ROSS/ ★ D13 81117 C/46 ★DT 3010-188
Detoxicating and/or taste-improving plant seed oil feedstuff treatment - with oxidising catalyst in dry conditions opt. with grating (NL 28.10.80)
ROSSI J 24.04.79-SF-001322
C03 (06.11.80) A23k-01/14 A23l-01/20

Oil plant seed oil-contg. prods. ill-tasting and/or toxic cpds are treated with 0.5-5 wt%, w.r.t prod. dry solids, of oxidising catalyst, pref. Cu-, Fe-, Mn- or Co salts, in mois-ure content 8-30 (12)wt% and at 60-120(80-100)°C. Prods. contg. > 50wt% lignocellulose and/or protein require strong grating during treatment, to destroy prod. cells.

The prods are used as feedstuffs for ruminants and other animals, including chicks. The treated feedstuffs prods. can be fed directly. Treatment increases amount freely consumed, e.g. from 200- to 1600 g/day when given to cattle. 7.3.80 as 010188(12pp200)

LAIT- ★ D13 81230 C/46 ★FR 2447-149
Lacto-serum obtained by contacting skimmed milk with cationic resin - having a lower mineral and halide content than previously given
LAITERIES TRIBALLAT 24.01.79-FR-001780 (02.03.78-FR-006006)
(26.09.80) A23c-21

The lactoserum according to claim 7 of the principal patent contains $<$9% mineral material and a chloride content as NaCl of $<$3.5%.

More searching analysis has shown that the material has a lower mineral content (previously $<$10%). Compared with a normal hydrochloric casein lactoserum, the above has a lower acidity, mineral content, chloride content and Na, K and Ca content.

The mineral content is pref. 8-9%. The pref. Na, K and Ca contents respectively together with the totals are pref. $<$1%, $<$3%, 1.5-2% and $<$5%. 24.1.79. as 001780 (4pp597).

MATH/ ★ D13 81231 C/46 ★FR 2447-150
Pre-roasting treatment for green coffee - making it suitable for home roasting as required
MATHEY R M 24.01.79-FR-001811
(26.09.80) A23f-05/02

The treatment comprises stopping the roasting when the temp. goes above 150°C. The prod. is stable to storage without loss of flavour and it may be easily roasted by the consumer to obtain a coffee to his particular taste.

After the treatment the coffee is pref. emptied into a cooler, esp. into a liquid at 0°C. The treatment removes 95% of the thin film material. It may then be roasted in a small household stove or frying pan. 24.1.79. as 001811 (5pp597).

LAIT- ★ D13 81232 C/46 ★FR 2447-151
Prepn. of casein from skimmed milk using cationic resin - to lower pH and using sepd. serum to regenerate resin
LAITERIES TRIBALLAT 24.01.79-FR-001777
(26.09.80) A23j-01/20

The skimmed milk under agitation is contacted with a cationic resin in H form for sufficient time to obtain milk of pH $>$4.7 but less than the pH of the initial milk and of the resin satd. by metal ions. The milk is then sepd. from the resin, coagulated, and the curds are then sepd. from the serum. The serum is then used to regenerate the resin.

The use of the serum bath for the generation and also to finish the coagulation enables economy both in HCl used and in operating costs. 24.1.79. as 001777 (8pp597).

NEST D13 02582 A/02 =GB 1571-156
Continuous extraction of coffee or tea - to yield instantly soluble powders having a natural taste
SOC PROD NESTLE SA 24.06.76-CH-008065
*+P28 (09.07.80) *DT2728-609 B01d-11/02 +A47j-31/24*

Continuous extraction process for roasted coffee or tea consists of taking dry finely ground coffee or tea of dia. 0.25-2mm. as defined by Rosin, Rammler and Sperling and introducing to a charging station to form a bed of thickness 0.5-15cm. The bed displaced along a closed circuit pref. comprises a plurality of successive but separate extraction stations. A stream of extraction liquid is passed through the bed. The liquid is maintained at a pressure gradient of $<$6 atmos. gauge maintained upstream of the bed and a pressure above or equal to the boiling pressure of the extraction liquid is maintained downstream of the bed. The extraction liquid is pref. at temp. of 70-140°C. The total extraction time varies from 20 seconds to 5 minutes.

The coffee extract develops the flavour of domestic or expresso coffee as opposed to instant coffee. The coffee or tea extract is concentrated by freeze drying or spray drying. 22.6.77 as 026075 (8pp937).

HANS/ ★ D13 81271 C/46 ★GB 1571-251
Shaped bran-dried fruit food compsns. - providing bran in pleasant, convenient form
HANSSEN M 25.04.77-GB-017047
(09.07.80) A23l-01/10

Shaped food compsn. consists of an intimate, homogeneous mixt. of bran (I) and dried fruit (II). Opt. the compsn. may also contain lecithin, and other flavours and/or additives (e.g. edible moistening agents such as honey or treacle if the amt. of (I) present is large compared with (II); nuts; chocolate; and preservatives (SO_2 or $PhCO_2Na$), etc.).

The compsn. provides (I) in a pleasant tasting and convenient form which also enables the daily intake to be measured accurately. In addn., the compsns. have consistent flavour and good shelf life. 19.4.78 (3pp478).

FALL/ D13 38812 A/22 =GB 1571-257
Isolation of cholesterol from egg powder - by extracting with aq. ethanol, saponifying and extracting with hydrocarbon solvent
FALLIS A G 19.11.76-CA-266152
*B01 E17 (09.07.80) *DT2751-392 C07j-09 +A23l-01/32*

Sepn. and recovery of discrete portions from egg includes (A) extracting dried egg powder with aq. EtOH soln. at 25-30°C for 2-4 hrs. to give soln. (I) contg. egg fats and free cholesterol, leaving an edible egg solid; (B) recovering the solid; (C) saponifying the soln. (I) to give soln. contg. free cholesterol and saponified fatty acid; (D) extracting the saponified soln. with an extractant including an organic non-polar solvent to form at least a 2-phase soln.; (E) recovering saponified acid from lower phase of the soln.; (F) concentrating free cholesterol soln. in upper phase and recovering crystallised cholesterol.

A cholesterol-free egg prod. is obtd. and the sepd. cholesterol may be used as an intermediate for oral contraceptives, as well as in vitamin D prodn. 16.11.77 as 047658 (7pp963).

ASAE D13 07742 A/04 =GB 1578-986
Cocoa butter substitute for chocolate mfr. - consists of refined fats from seeds of shorea robusta
ASAHI DENKA KOGYO 11.03.77-JA-026851 (30.06.76-JA-077202)
*(12.11.80) *NL7707-170 C11b-03*

Cocoa butter substitute comprises sol. fat obtd. by extracting from seeds of Shorea rubusta, then refining. The prod. has a OH value of 0-16, a solid fat index of 48-60.5 at 30° C, a cooling time of 45-120 mins. when the max. is reached in the cooling curve, and a temp. of 17-28°C at the max.

The refining step comprises treating the crude fat with 0.1-0.4 wt.% of phosphoric acid, removing aggregated gums and mucilaginous materials, adding aq. alkali soln. to an amt. 3-10 times the amt. of alkali needed for neutralisation of free fatty acids, removing the fats formed, washing with hot water, adding 5-20 wt.% of activated clay to the fat, removing the clay and adsorbed materials, then deodorising the fat by steam distillation at 220-270°C.

Opt. fractional refining step may be added to remove monoglycerides, diglycerides, OH-fatty acids and epoxy fatty acids as impurities from the crude fat. 30.6.77 as 027320 (+ 19.7.76 - JA - 085714) (18pp931).

NEST D13 82876 A/46 =GB 1579-090
Prodn. of methionine- contg. foodstuff additives - (SW 18.9.78)
SOC PROD NESTLE SA 22.02.77-CH-002165
*C03 E16 (12.11.80) *J53115-830 A23l-01/34 B01j-13*

Micrograngulates for the addn. to foods having a deficit in methionine so as to increase their nutritive value comprise a core consisting of methionine microcrystals 10μ in size encapsulated in a gelled polymer matrix of spheroid shape. The core is coated with >1 layers of a vegetable protein e.g. Zein extracted from gluten. The microgranulates are 25-200μ in dia.

Pref. matrix contains gelatin and a plasticiser e.g. gum arabic or filler, e.g. protein from disintegrated yeast cells. Microgranules pref. contain ≯50 wt.% methionine. 22.2.78 as 007035 (7pp954).

CARN- ★ D13 81287 C/46 ★GB 2046-070
Preparation of frozen par-fried chips - subjected to two/stage drying to reduce weight prior to frying
CARNATION CO 13.04.79-US-029608
(12.11.80) A23l-01/21

Frozen, par-fried potato chips are prepared by first peeling, trimming and cutting potatoes into the desired shapes. These are blanched and then dehydrated by first contacting them with circulating ambient air and then with circulating heated air. The distribution of moisture in the chips is then equalised and they are par-fried prior to freezing.

The dehydration by ambient air reduces the wt. of the chips by 8-15%, and the second dehydration further reduces the wt. by a similar amt. They are fried for 20-90 secs. at 325-390°F.

The method is used to produce frozen chips which may be used by finish frying for a short period. The resulting chips have a crisp, rigid surface and a mealy internal texture. They retain these characteristics for extended time periods after finish frying. 26.11.79 as 040754(5pp295)

ALFA ★ D13 81288 C/46 ★GB 2046-072
Apparatus for continuous production of cheese - including dewheying, fusing, cheddaring, milling and salting sections
ALFA-LAVAL AB 20.03.80-GB-009465 (23.03.79-GB-010317)
P13 (12.11.80) A01j-25

A slurry of curds and whey are deposited in a drainer which removes a substantial portion of the whey. The drained curds are deposited on a first conveyor which carries them successively through a drying and dewheying section, a fusing section for forming them into a mat, and a cheddaring section for acid development in the curd.

The cheddared curd is cut into separate pieces which are placed on an endless salting conveyor positioned beneath the first conveyor. The salting conveyor includes a salting section and a mellowing section.

The appts. produces cheese, particularly Cheddar, on a continuous basis. 20.3.80 as 009465 (10pp295).

BRSO- ★ D13 81290 C/46 ★GB 2046-076
soya bean food flavouring additive - prepd. by steam cooking, dehulling, roasting and grinding
BRITISH SOYA PROD L 11.12.79-GB-042582 (22.03.79-GB-010101)
(12.11.80) A23l-01/20

Soyabeans are processed by cooking in steam, removing the hulls and roasting the dehulled cotyledons. Pref. the soyabeans are cooked at 100-120°C for 5-35 mins. They are then pref. dried in air at 100-120°C and roasted at 125-235°C for 35-160 mins. Pref. the roasted cotyledons are ground to an average grain size of <150 μm.

The ground soyabeans may be used as a high protein flavouring additive to foods, e.g. to replace at least part of coffee, cocoa or caramel in a food prod. 11.11.79 as 042582 (3pp295).

THIS- ★ D13 81295 C/46 ★GB 2046-110
Softening of cooking fats - by extrusion through orificed plate and subsequent nozzle
THISTLE ENG LTD 07.03.80-GB-007878 (15.03.79-GB-009210)
(D11) (12.11.80) B01f-03/20 B01f-13

A hard block of fat is softened by compressing it to force it through a restricted orifice. Pref. the fat is forced first through an array of orifices formed in a plate and then is extruded through a nozzle in the form of a continuous ribbon. The ribbon may be cut into slabs of predetermined wt. Pref. the fat is compressed in a chamber which has a piston slidable within it.

Method is used to soften margarine, butter or lard prior to processing, in particular in the mfr. of flaky pastry. 7.3.80 as 007878 (5pp295).

PIFF/ ★ D13 C/46 ★ IT 1046-545
Fruits and vegetable decolourisation process
PIFFERI P G 11.02.74-IT-003333
(31.07.80) A23l

SAVI/ ★ D13 C/46 ★IT 1046-743
Tomatoes skinning process and appts.
SAVI A 05.02.74-IT-040008
(31.07.80) A23b

DECA/ ★ D13 C/46 ★IT 1046-822
Automatic, electric coffee maker - for domestic and industrial use
DECARLI A 07.10.74-IT-028110
X27 (31.07.80) A23f

ASAH ★ D13 81750 C/46 ★J5 5127-952
Pickling solns. contg. regenerated cellulose and seasoning - produce pickles quickly with uniform quality without off odours or colours
ASAHI CHEMICAL IND KK 27.03.79-JA-035071
A97 (03.10.80) A23b-07/10 A23l-01/21

Vegetables are soaked in a mixt. (I) contg. flat yarn (II) of regenerated cellulose, for prodn. of pickles.

Viscose rayon, cellulose nitrate, cellulose acetate, etc. are used as (II). Seasonings such as sodium glutamate, hydrolysed animal protein, sodium succinate, etc., organic acids such as lactic acid, citric acid, etc., and sweeteners are mixed in (I). 27.3.79 as 035071. (5pp42)

KANE- ★ D13 81751 C/46 ★J5 5127-955
Foamable chewing gum - contg. fine particles of sodium bi:carbonate, fine particles of organic acid and chewing gum particles
KANEBO SHOKUHIN KK 22.03.79-JA-034728
(03.10.80) A23g-03/30

A foamable chewing gum (I) is composed of fine particle of a mixt. (II) contg. $NaHCO_3$ as principal component, fine particle of a mixt. (III) contg. organic acid as principal component, and fine particle of flavoured chewing gum (IV).

The fine particle of (II) is composed solely of $NaHCO_3$ or of a mixt. of $NaHCO_3$ and edible excipient such as starch, sugars, etc., and is pref. coated by water-soluble food materials such as starch, sugar, natural polymer, etc. The fine particle of (III) is composed of solely, organic acid such as succinic acid, citric acid, etc. or of a mixt. of the acid and the edible excipient and is pref. coated by the water-soluble material. Contents of sum of (II) and (III) in (I) is 20-70wt.%.

Contents of (II) in other known (I) have been limited to 12-20wt.%, for making edges of (I) smooth after cutting, and moisture in (IV) transfers to (II) during storage, damaging the foaming property of (II). In the present (I), these disadvantages are improved. 22.3.79 as 034728. (6pp42)

ISHI/ ★ D13 81752 C/46 ★J5 5127-958
Animal feed additive comprises a clay - calcined to remove impurities e.g. sulphur and organic cpds., which reduces stress due to being confined in a small space
ISHIKAWA T 22.03.79-JA-033604
C03 (03.10.80) A23k-01/17 A61k-33

Clay (I) contains several mineral components such as SiO_2, Fe_2O_3, K_2O, Na_2O, CaO, etc. The clay is calcined without deformation or destruction of crystal structure, pref. at 200-400°C.

Clay has a specific surface area $>20\,m^2/g.$, and is composed of 60-70wt.% SiO_2, <13wt.% Al_2O_3, 3-5wt.% Fe_2O_3, 1-3wt.% K_2O, 1-3wt.% Na_2O, 1-3wt.% CaO and traces of Ba and other cpds. Pref. clay is montmorillonite. 22.3.79 as 033604. (3pp42)

DAIL ★ D13 81753 C/46 ★J5 5127-960
Prevention of secondary fermentation of ensilaged feed - by addn. of propionic acid partly neutralise with ammonia
DAICEL KK 23.03.79-JA-034585
C03 (03.10.80) A23k-03/03

The secondary fermentation of ensiled food (I) is prevented by addn. of 0.2-5wt.% of propionic acid (II) partially neutralised with ammonia, just after the temp. rise belonging to the sec. fermentation is recognised.

(II) is prepd. by neutralisation of conc. propionic acid with ammonium hydroxide, until pH reaches 4.5-5.5. The beginning of the sec. fermentation is judged by temp.-rise >10°C in comparison with atmospheric temp. The method is used for (I) of corn, green rice plant, etc. 23.3.79 as 034585. (4pp42)

FUJI/ ★ D13 81754 C/46 ★J5 5127-962
Citrus fruit jam prepn. - involves heating the fruit e.g. orange, without skin in a soln. contg. sugar(s) and methoxylated pectin, and gelatinising
FUJII T 28.03.79-JA-035528
(03.10.80) A23l-01/06

The fruit-jam (I) is prepd. by heating endodermis-removed citrus fruit in a concd. aq. soln. (II) contg. sugars and slightly methoxylated pectin (III) at 70-90°C for 2-4 hrs. and making it gelatinised upon addn. of a concd. soln. (IV) contg. citrus fruit juice, sugar, pectin and organic acid, followed by boiling.

Mandarin orange, valencia orange, summer orange, etc. are pref. used as (I). (II) should contain 700-900 g./l., e.g. (850 g./l.), of $\geqslant 1$ of sucrose, glucose, invert sugar, fructose and 2-4 g./l., e.g. (3.g./l.), of (III). (IV) is prepd. by mixing 750 pts.wt. of fruit juice, 100 pts.wt. of sugars, 8 pts.wt. of pectin, and, if necessary, 1-1.5 pts. wt. of ascorbic acid and 2-2.5 pts.wt. of polyphosphate, concg. it until the Brix reaches 35 and adding 900 pts.wt. of sugars. The wt. ratio of (II) to (III) is 1:1.5 to 2.0. 28.3.79 as 035528. (3pp42)

SUZU/ ★ D13 81755 C/46 ★J5 5127-972
Improving taste of food contg. stevioside - by addn. of sodium or potassium chloride
SUZUKI Y 23.03.79-JA-033367
(03.10.80) A23l-01/22

The taste of a food contg. stevioside (I) is improved by the addn. of 3-10 pts.wt. salt (II) to the food contg. 1 pt.wt. (I). The food to which the present method is applied may contain sweeteners such as sucrose, glucose, fructose, etc. other than (I). Sodium chloride and potassium chloride are used as (II).

Although (I) has strong sweetness, it tastes bitter when the sweetness disappears in mouth. The addn. of (II) to a food contg. (I) increases the sweetness of the food by 20-30% and improves the taste of (I). 23.3.79 as 033367. (5pp

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NITL ★ D13 81765 C/46 ★J5 5128-000
Treating waste juice from sepn. of starch from ground potato - to recover protein, aminoacid etc., by passing through reverse osmosis membrane modules connected in series
NITTO ELECTRIC IND KK 27.03.79-JA-036712
(03.10.80) C13l-01

Juice (I) contg. useful components such as protein, amino acid, etc. is passed through number of reverse osmosis membrane modules joined in series. The modules arranged near the inlet of (I) have 80-90% rejection ratio against NaCl in 0.1-0.5% aq. soln. under pressure of 15-80 kg./-cm^2 and a 0.02-0.03 $m^3/m^2 \cdot day \cdot kg./cm^2$ membrane constant. The modules arranged near the outlet of (I) have smaller rejection ratio and larger membrane constant.

The modules arranged near the outlet should have 30-80% rejection ratio and $>0.03\,m^3/m^2 \cdot day \cdot kg/cm^2$ membrane constant.

(I) is the waste juice obtd. after sepn. of starch from grinded potato. As (I) has COD of 12000-15000 p.p.m., it causes pollution problems to discard (I) as it stands. The method allows recovery of useful proteins and amino acids from (I) and to reduce COD of (I) to about 80 p.p.m. 27.3.79 as 036712. (3pp42)

KOJK ★ D13 81876 C/46 ★J8 0040-220
Culturing earthworms - using culture medium contg. vegetable waste e.g. fibre, urea and water
KOHJIN KK (KYOX) 21.05.74-JA-056112
C03 (16.10.80) A23k-01/18

Earthworms are cultivated on a culture medium which contains vegetable waste such as waste fibre generated from pulp factory, urea and water, water content being 60-90 wt %, urea content being 0.01-1.0 wt % and pH being 6.0-7.0. 21.5.74 as 056112 A23k-1/18 (16.10.80) KOJIN KK ;KYOWA SANGYO KK, (4pp22) (J50148181)

TANB D13 83451 B/46 =J8 0040-221
Feedstuff for crustacea, e.g. shrimps, lobsters, crabs, etc. - contains (dehydro)cholic acid, its metal salt, its inclusion cpd. with amino acid, etc., to accelerate growth
TOKYO TANABE KK 25.03.78-JA-033632
*C03 (16.10.80) *J54130-393 A23k-01/18*

The cholic acid cpd. is incorporated into natural or artificial feedstuff compsns. in an amt. of 0.01-0.2 or pref. 0.05 wt %. The feedstuff is then shaped into a suitable form, such as pellets 0.5-5 mm dia. and 3-10 mm length, using a binder. 25.3.78 as 033632, A23k-1/18 (16.10.80) TOKYO TANABE KK (4pp22) (J54130393)

RIKV ★ D13 81877 C/46 ★J8 0040-222
Mfg. binder for feedstuff pellets - by decomposing gelatin with protease, drying and pulverising
RIKEN VITAMIN OIL KK 02.08.73-JA-086938
C03 (16.10.80) A23k-01/20

Gelatin is decomposed with protease, and then dried and pulverised to give binding agent for prepn. of feedstuff pellets. The protease may be alkali protease, acid protease, etc. Decompsn. is conducted at 20-70°C with protease in amt. of 0.1-1.5 wt %. 2.8.73 as 086938, A23k-1/20 (16.10.80) RIKEN VITAMIN KK (4pp22) (J50034950)

TOSU- D13 27238 X/15 =J8 0040-596
Stevioside isolation and purificn. - using alkaline extract of plant leaves, stems and nonpolar porous polymer resin
TOYO SUGAR REFINING 19.08.74-JA-094239
*B03 E13 (18.10.80) *J51023-300 +C07h-15/24*

A method is described for isolating stevioside (glycoside) from Stevia rebaudiana Bartoni and purifying. An extract (pref. at pH 10-12), obtd. either by extn. of leaves and stems of the above plant with alkaline water or by extn.of the same with water followed by rendering the extract alkaline, is treated with a non-polar porous polymer resin (porous styrene-divinylbenzene polymer, etc) and the desired cpd. adsorbed on the resin is eluted with water, a hy-drophilic organic solvent (methanol, isopropyl alcohol, acetone, tetrahydrofuran, etc) or a mixt. thereof. The elutate is concd. if necessary, after removing impurities using an ion-exchange resin.

The desired prodt. can be obtd. as highly pure white crystals (m.pt. 196-198°C). 19.8.74 as 094239 C07h-15/24 (18.10.80) TOYO SUGAR REFINING (3pp) (J51023300)

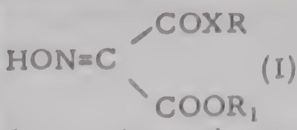
TOPP D13 42362 Y/24 =J8 0041-194
Powder coating comspn. for electrostatic printing edible materials - obtd. by mixing edible thermoplastic resin and edible colouring matter
TOPPAN PRINTING KK 28.10.75-JA-128902
*A97 B07 G02 P75 P84 (S06) (22.10.80) *J52054-511 B41m-01/42 +G03g-09/08*

A powdery ink for electrostatic printing is obtd. by holding fine powdery silica on the surface of a powdery ink, the powdery ink being prepd. by mixing an edible thermoplastic resin (I) and an edible colouring matter (II), and pulverising the resulting mixt. (I) are gutta percha, sandarac, shellac, dammar, and like resins (II) are aluminium lake carbon black, iron oxide, and the like. The fine powdery silica has a size of 5-100 μ and a specific surface area of 30-700 m^2/g.

The ink can be printed on medicines and foods. Good images having good density are obtd. No blocking is caused even after standing under high humidity conditions. 28.10.75 as 128902, B41m-1/42, G03g-9/08 (22.10.80) TOPPAN PRINTING KK (3pp77) (J52054511)

TAKE D13 33059 V/18 =J8 0041-227
Isonitrosomalonates prodn - from malonic acid imido esters, for use as star ting materials for prepn of pharmaceuticals and agricultural chemicals
TAKEDA CHEMICAL IND KK 24.10.72-JA-106472
*B05 C03 E16 (E15) (22.10.80) *DT2352-706 C07c-103/48 C07c-131 C07c-153/09 +C07c-101/20*

Cpds. of formula (I) (where X is O or S, and R and R_1 are alkyl opt. substd. by lower alkoxy or halogen), which may be reduced to give corresponding aminomalonic acid esters which are useful as inters for various pharmaceuticals, agricultural chemicals and amino-acids (esp.sweet peptides), are proudced in yields of 70-90% or more by reacting cpds. of formula: $B-CH_2-C(XR)=NH$ (where B is $-COOR_1$ or $-C(XR_1)=NH$) with a nitrosating agent, pref. $NaNO_2$. 24.10.72 as 106472 C07c-131/00, 101/20, 103/48, 153/09 (22.10.80) TAKEDA CHEM. IND. LTD. (7pp) (J49066629)



$$HON{=}C\begin{matrix}\diagup COXR\\ \diagdown COOR_1\end{matrix}\qquad (I)$$

NONB= ★ D13 82036 C/46 ★SU -725-644
Conversion of animal excreta into fertiliser and protein feedstuff - by placing it on trays and treating with maggots hatched from flies eggs
NONBLACK ZONE AGRIC 17.05.78-SU-621757
C03 (C04) (05.04.80) A23k-01 C05f-03/06

Flow line for converting animal excreta into fertiliser and protein feedstuff, comprises excreta store, divider for making it into fractions linked by conveyors to the dryer, grinder, and storage assembly for the finished products. Productivity and final quality are increased by providing chambers to convert the excreta into fertiliser and feeding material consisting of a closed plate conveyor with trays for the excreta suspended on it and a chamber for breeding flies. There is a means for sieving out the flies' eggs, linked to the chamber for converting the excreta, in turn connected by a conveyor to the excreta store. The divider is a closed horizontal mesh conveyor with sources of light and heat disposed above it, plus hoppers to collect the fert-iliser and maggots underneath the conveyor. The maggot-collecting hopper is linked to a dryer.
Ernst, L.K., Baikov, V.A., Kormilitsyn, V.V. et al. Bul. 13/5.4.80. 17.5.78 as 621757 (4pp29)

CBLA= ★ D13 82037 C/46 ★SU -725-645
Prodn. of stable nitrogen-enriched sawdust - by soaking sawdust with urea soln. and thermally fixing urea on sawdust particles, used in mfr. of feed for ruminant
C BLACK ZONE AGRIC 27.11.78-SU-688522
C03 F09 (05.04.80) A23k-01/12

The nutritive value of this product is increased by enriching the sawdust with a urea soln. and drying at 300-350°C. Subsequently, the modified sawdust is soaked in 3-10 fold quantity of water to remove urea excess. The excess water is removed, pref. by filtration.

If the product is designated for storage, additional drying at 500-600°C. is applied.

A major part of the urea reacts with the substances contained in the sawdust during the drying at 300-350°C. The free urea is subsequently washed away. The fixed urea compensates for the low protein content in the sawdust. The final fixed nitrogen content in the sawdust is 4.13% (control 0.42%). The milk prodn. by cows fed with the sawdust treated as above is virtually the same as obtd. with grain and green mass of plants.
Timofeev, Yu.P., Berestov, V.F., Batrakov, N.K. Bul. 13/5.4.80. 27.11.78 as 688522 (3pp70)

POTA= ★ D13 82038 C/46 ★SU -725-646
Equipment for drying potato puree to produce granules - includes roller to press the puree through perforated cylinder
POTATO FOODSTUFFS 04.07.77-SU-502845
Q76 (05.04.80) A23l-01/21 F26b-17/20

Drying equipment for conversion of potato puree into granules, comprises chamber with loading unit and attachment for moving the puree. Product quality is increased by making the latter as a hollow horizontal shaft with vanes on the ends of rods, plus agitator/shapers. These are distributed in planes mutually at right angles and alternating between themselves. The chamber has a pipe to admit the puree. The agitator/shapers have a cylindrical shape, with part formed by two plates connected at an angle.
Revzin, Y.Ya., Raginya, M.V., Rubinichenko, B.M. Bul. 13/5.4.80. 4.7.77 as 502845 (4pp29)

NON= ★ D13 82039 C/46 ★SU -725-647
utter for seed potato tubers - has shaped conveying rollers which rient tubers for cutting by disc knives
UKR NONBLACK ZONE 18.09.78-SU-666513
P11 (05.04.80) A01c-09/04 A23n-15

evice for cutting the tubers of seed potatoes includes a orting table in the form of shaped rollers, tuber-orienting echanism and battery of disc knives. Quality of cut is ncreased, as a result of orienting long tubers along their ength, by making the orienting mechanism as a multitrack onveyor belt underneath the sorting table, with flexible crapers fastened to it. The disc knives are disposed between the lengths of belting on its drive shaft.

enshchuk, D. M., Deshko, V.I. Bul. 13/5.4.80. 18.9.78 s 666513 (2pp29)

OME= ★ D13 82178 C/46 ★SU -725-899
ruit expressing auger press - has locking disc with peripheral roove matching last conical flight turn
DOMESTIC ELEC MACH 17.08.78-SU-654752
P71 (05.04.80) B30b-09/16

ncreased expressing of fruit or vegetables is ensured by an auger press featuring locking disc on the shaft of the auger. The peripheral part of the disc has a sector groove the depth of which is equal to the height of the last turn of the expressing auger. The last turn is at the edge of the groove.

The coarsely ground raw material is fed into a hopper and the auger conveys it into the pressing chamber, where the conical auger expresses the juice by the variable pitch flight. The juice passes through a perforated drum prior to discharging.

Motinov, V.A., Mikhailenko, L.F., Zubashchenko, G.P. et al. Bul. 13/5.4.80. 17.8.78 as 654752 (2pp89)

ATLA D13 60918 C/35 =US 4230-034
Vegetable cleaning and peeling appts. - having cage with walls formed by abrading rollers, and auger controlling vegetable movement through cage
ATLAS AS 12.02.79-US-011391
*+P28 (28.10.80) *EP--14-598 A23n-07 +A47j-17*

Material is removed from the surface of produce using appts. consisting of a housing for the produce, and a cage rotatably mounted in the housing and formed of spindles with material removing surfaces. The cage is rotated with sufficient speed to move the produce in a circular path without falling to engage the produce. A member partly in the cage resists the falling movement of the produce and is used to control falling and hence residence time of the produce in the housing. The removed material is sepd. from the produce.

Pref. the spindles are brush bristles of varying lengths. Produce can be economically cleaned and peeled. 12.2.79 as 011391 (23pp1376)

CHAM/ D13 65802 B/36 =US 4230-451
Heat sterilising plant for organic waste using hot air - recycles waste gas generated through burner combustion chamber to recover combustion energy
CHAMBE M 17.02.78-FR-005465
*C03 Q73 Q76 +Q77 (C04 D15) (28.10.80) *NL7901-177 F23j-05*

Appts. for thermal treatment of organics consists of horizontal tank with a cylindrical bottom having a conductive inner wall and an insulating outer wall defining a gas-flow passage between. A hermetically sealed roof has an opening for the introduction of the organics into the tank. An outlet is formed along the bottom. Vapour from the tank is burnt in a burner entering and heating the passage. Temp. sensor in the chamber controls the temp.

Organic wastes can be destroyed without odours. .5.2.79 as 012492 (6pp1376)

TEIJ D13 68443 B/38 =US 4230-595
Oxygen scavenging and heat generating compsn. - contg. metallic ron and oxidn. promoter
TEIJIN KK 07.08.78-JA-095363 (13.03.78-JA-027601)
*A60 E36 G04 Q34 (D22) (28.10.80) *EP---4-073 A23d-03/34 A23d-05/04 C09k-15/02 +C09k-05*

O_2 scavenger compsn. consists of (a) metallic Fe, (b) $\geqslant 1$ oxidn. promoter selected from Na silicate hydrates, silicic acid, Na alum. and Na borate hydrates, and opt. (c) $\geqslant 1$ oxidn. promoter aid which is a metal halide cpd., and/or (d) a water-insol. or sparingly water-sol. inert filler.

Pref. (c) is NaCl, KCl, $MgCl_2$, NaBr or KBr. The amt. of (a) is pref. 5-90 wt.% and the amts. of each of (b), (c) and (d) are $\geqslant 3$ pts. wt./100 pts. wt. (a). The compsn. can be easily used and can scavenge O_2 smoothly. The compsn. can be used in heat-generating structures. 6. 3. 79 as 018014 (+16. 3. 78, 7. 6. 78, 3. 8. 78-JA-029217, 067747, 094092) (14pp393)

VITO-`★ D13 82498 C/46 ★US 4230-695
Enhancing protein assimilation without drugs - by taking fructose and high quality protein and avoiding insulin stimulating carbohydrate
VITOSE CORPA 02.08.76-US-710572
B05 (28.10.80) A61k-31/70 A61k-37/02

Assimilation of dietary protein into body tissues is improved by admin. of a dietary supplement including fructose and a protein of PER $\geqslant 2.5$, in combination with a dietary regime in which the subject abstains from eating insulin-stimulating carbohydrates for a period before admin. long enough for blood insulin to fall to near basal levels, and until complete absorption of the protein has taken place.

Method facilitates protein assimilation in athletes, patients after surgery, pregnant women etc. without use of drugs. 2. 8. 76 as 710572 (3pp955)

TEZU/ ★ D13 82515 C/46 ★US 4230-728
Temporary pack for rice ball and laver wrapping - comprising folded moisture-proof sheet holding apart except for laver end struck to ball
TEZUKA A 30.09.77-JA-U30740
Q34 (28.10.80) B65d-81/32

A sheet for temporarily hand-packing and enclosing a triangular rice-ball together with an equilateral triangular sheet of dry laver while isolating the two includes a moisture-proof diamond-shaped sheet folded along a line between opposite angles with the dry laver between the folded sections, and a pull-out sheet extending from the top unfolded angle and folded back towards the first fold.

The ball is located on the pull-out sheet to keep it away from the laver except for an end which is exposed and is folded to stick to the ball so that the ball can be positioned on the laver when the packing sheet is unfolded before consumption. The moisture-proof sheet is pref. waxed paper. 31. 8. 78 as 938349 (4pp1358)

INTE- D13 51931 C/30 =US 4230-733
Vegetable juice extractor - with cells in disc intermittently revolving them to four press and one discharge station (NL 8.7.80
INTERCANE SYST 04.01.79-US-000985
*P71 (28.10.80) *DT2951-743 +A23l-01/28*

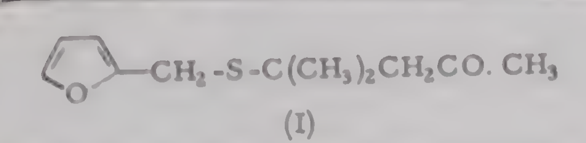
Apparatus for extracting plant juice comprises a carrier with a reciprocable compressor at each of a number of spaced stations, and a head rotatable relative to the carrier and having cells carrying plant material and alignable with the stations. The head is indexed so that the compressors can express juice from the material.

Conduits are connected to some or all stations for introducing imbibition liquid ahead of the compressors. There is pref. a station with a reciprocating member for discharging spent material. The head is pref. located between two stationary carriers, one with the compressors and the other with an apertured backing screen to support the material. 4. 1. 79 as 000985 (19pp1358)

NAAR D13 69259 Y/39 =US 4230-734
(4)-Methyl-(4)-furfurylthio-pentanone - for use as a foodstuff flavouring (NL 19.9.77)
NAARDEN INT NV 15.03.76-NL-002689
*E13 (28.10.80) *DT2711-319 A23l-01/23*

The flavour of a food prod. is enhanced or changed by addn of a thiopentanone cpd. of formula (I) to the ingredients, in an amt. of 0.005-100(0.05-10) ppm. Specifically (I) is 4-

methyl-4-furfurylthio-pentanone-2.



(I)

The novel cpd. (I) can be prepd. by addn. of furfuryl mercaptan to mesityloxide. (I) is useful for addn. to meats, spices, sauces, fish, cocoa coffee, nuts etc. The cpd. or the flavour prepn. can be diluted with solid or liq. carriers. 8.12.78 as 967596 (+11.3.77-US-776763) (3pp924)

RALS ★ D13 82517 C/46 ★US 4230-736

Liq. feed supplement for ruminants - contg. chlorinated fat to limit intake, excessive feeding being prevented without use of metering equipment

RALSTON PURINA CO 18.12.78-US-970288

C03 (28.10.80) A23k-01/02

Liq. feed supplement for ruminants comprises a liq. carbohydrate (A) plus sufficient chlorinated fat (B) of Cl content 0.2-3.7 wt.% to limit feed intake. Pref. (B) contains 0.8-1.5 wt.% Cl and is present at ⩾1, esp. 2-8 wt.% of the compsn. (A) is esp. molasses. The compsns. may also contain (a) ⩾1 of $(NH_4)_2HPO_4$ and $(NH_4)_2SO_4$, esp. 0.1-5 wt.% each; (b) a colloid, esp. at 0.5-5 wt.% and (c) a dispersing agent, esp. at 0.1-20 wt.% on (b).

The colloid is e.g. bentonite or attapulgite clay (used with phosphate dispersants) or vegetable gums, e.g. Xanthan gum.

Consumption of the supplement can be controlled at the optimum level without need for metering equipment to prevent excessive feeding. 18.12.78 as 970288 (4pp1251)

MILE D13 15969 A/09 =US 4230-738

Prepn. of protein concentrate with fish texture - by extracting protein extrudate with aq. solvent at pH 4.4 to 4.8

MILES LABORATORIES INC 22.10.76-US-735002 (15.09.75-US-613090)

*(D12) (28.10.80) *BE-859-999 A23j-03*

In the prepn. of a textured protein concentrate from protein extrudate contg. water soluble constituents by the aq. extn. of water soluble constituents from the extrudate, the improvement is that the protein extrudate has a density of 85-150 g/l on dry wt. basis, and the extn, is carried out at a pH of 4.4-6 (5-6) at~65°C.

A textured protein concentrate having improved meat-like texture and bland flavour is produced. Pref. the prod. has a texture similar to tender lean portions of beef, port, poultry or shellfish. Pref. a major portion of the water soluble constituents are extracted from the extrudate to provide a textured protein concentrate having ⩾70 wt.% protein. 22.10.76 as 735002 (7pp924)

HANS- ★ D13 82587 C/46 ★WP 8002-225

Destabilising proteolytic activity of milk clotting enzymes - by oxidn. treatment, so that milk clotting and storage stability are retained

CHR HANSEN'S LAB AS 25.04.79-DK-001717

(D16) (30.10.80) A23c-19/03

D/S: N(DK, JA, SW) + E(CH, DT, FR, GB, LU, NL, OE, SW).

The proteolytic activity of microbial milk-clotting enzymes (I) for use in cheese prodn. is destabilised by oxidn. of (I) to a degree which does not substantially reduce its milk clotting activity (compared with untreated (I)) and which allows substantial retention of its storage stability.

Treatment effectively modifies (I) so that their residual proteolytic activity in whey and cheese is reduced, but their milk-clotting activity and storage stability are retained satisfactorily. Treated (I) have characteristics similar to calf rennet.

25.4.80 as DK0025 (15pp478).

(E) ISR: US4136201; US3549390; SW-147370; DT2107891; DK-110031; DS2901542; 1 Journal Reference.

POWE- ★ D13 82588 C/46 ★WP 8002-226

Dry, water-dispersible nutritional food compsn. - contg. protein, carbohydrate, lipid(s) and non degradable cellulose material

POWERS NUTRITION CO 16.04.79-US-030324

(30.10.80) A23l-01/30

D/S: N(DK, JA, NO) + E(CH, DT, FR, GB, NL, OE, SW).

Dry nutritional food compsn. which can be rapidly dispersed in water contains (by wt.) 25-50% of an animal protein (I); 20-50% of a carbohydrate (II); 5-10% lipids (III); 0.4-5% non-degradable vegetable fibre (IV); and ca 1% flavouring agents; and vitamins and minerals. (I) is casein, lactic casein, Ca or Na caseinate, and/or non-fat milk solids. (II) is fructose, dextrose, or corn syrup solids. (III) is a partially hydrogenated vegetable oil together with a minor amt. of lecithin. (IV) is cellulose gum or cellulose gel as finely divided microcrystalline cellulose.

The compsn. is readily dispersed when mixed only with water to form a highly palatable, liq. compsn. which contains sufficient bulk to avoid discomfort between meals (i.e. from hunger) when used as a complete meal replacement. The diluted compsn. is much more palatable than conventional compsns.

7.4.80 as US0366 (16pp478).

(E) ISR: US3097947; US3988511; US3310406; US3432306; US2860051; US3126283; US3968268; DT2730158; 1 Journal Reference.

See Also

D16 GB 1579012
D16 J8 0040236
D16 J8 0040238
D16 US 4230806
D17 DL 143928
D17 DS 2051766
D23 DT 3016111
D23 US 4230630
D23 US 4230687

D14: FOODSTUFF MACHINERY

INMA- ★ D14 C/46 ★BR 7902-276

Machine for treating potatoes and oranges

IND MAQ AGRIC 11.04.79-BR-002276

(24.10.80) A23n-09

MOLL/ ★ D14 80800 C/46 ★DL-143-696

Potato dressing station - combined with automatic weighing and performance recording device

MOLL J 11.03.75-DL-184691

(10.09.80) A23n-07/02

Machine for the final dressing of root crops, esp. for the removal of buds from peeled potatoes, consists of a line of up to ten working places, each with an inlet slot, a dressing cutter and an outlet chute. The latter leads to a flap which is counterbalanced by a wt. and tips the contents to a conveyor when a set wt. has been reached. A counter is operated at the same time.

Arrangement combines an ergonomically well designed working place with a reliable check of the work performance. 11.3.75 as 184691 (11pp39)

WENS/ ★ D14 80808 C/46 ★DL-143-713

Thermo-catalytic purificn plant for waste gases - esp. odorous gas leaving plants used for the roasting or smoking of foods

WENSKE R 15.12.76-DL-196339

J01 Q73 (10.09.80) F23j-05

In an outer, cylindrical vessel is a vertical, cylindrical combustion chamber forming an annular gap between the two cylinders; and gap is divided by walls into two half-ring chambers. Odorous or impure gas, obtd. e.g. from roasting coffee, flows from chamber into chamber, and then into chamber, which contains a tangential burner heating and oxidising the gas before it enters a catalyst chamber.

It is a simple, inexpensive plant with low operating costs. 15.12.76 as 196339 (15pp1144)

MAYE/ D14 24968 V/14 =DS 2323-229

Cooker fume-extraction hood - gives automatic warning when suction filter needs renewal or cleaning

MAYER H (MAYE-) 09.05.73-DT-323229

*+P28 P43 Q74 (06.11.80) *BE-807-495 A47j-36/38 F24c-15/20*

Cooker hood which filters the frying and cooling vapours through a filter for suspended droplets and an activated carbon filter to deodorise the smells. The hood has an additional diaphragm valve.

When the negative pressure between filters and fan becomes too high because the filters are clogged, this valve opens and bypasses the filters by opening an access for the kitchen air. At the same time, the valve spindle makes an electrical contact and lights up a warning signal.

This gives a clear indication that the filters need attention. 9.5.73 as 323229 (5pp39)

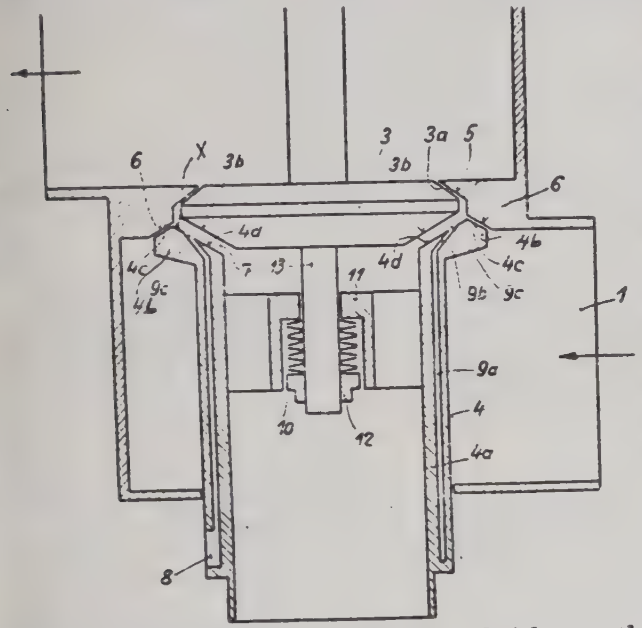
GEAA- D14 25507 A/14 =DS 2643-273

Double seat valve - with cleaning fluid channels for lower valve seat on leakage occurrence

GEA AHLBORN GMBH (AHLB-) 25.09.76-DT-643273

*Q66 (06.11.80) *DT2643-273 F16k-01/44 F16k-25/02*

Double-seat valve, eg. for milk pipelines, is equipped with a leakage control and with flushing facilities to remove any incrustation The first seal is made by a hand or power operated biconical valve disc. In the opening phase, this disc contacts a conical seat of a sleeve and moves it to open the access to the milk by lifting it off another conical seat.



Any leakage across this access seat drips inside the sleeve to its open end and becomes visible. A cleansing fluid can then be admitted through ports in the sleeve to flush away the incrustation.

This enables the user to supervise the state of the valve and always keep it in a clean condition. 25.9.76 as 643273 (4pp39)

SCHI/ ★ D14 81077 C/46 ★DT 2917-525

Mixer and dispenser for animal feeds - having central hub in vertical cylindrical rotating bowl with system of three screws to extract feed all mounted on vehicle

SCHIERBAUM E 30.04.79-DT-917525

P14 (06.11.80) A01k-05 A23n-17

Animal feed is mixed and dispensed from a mobile unit. This has a bowl mounted on bearings which allow it to rotate. Mounted inside the bowl is a horizontal screw backing radially from the edge of the bowl to the centre.

A second screw is mounted below the mixing bowl while a third screw is mounted vertically and takes the material to the point of use. The bowl and two of the screws have a common drive interconnected by shafts and gear wheels.

Used for dispensing animal feeds esp granular or staged maize. Allows both dry, free flowing materials or sticky materials to be mixed well and accurately metered, without the addition of water. 30.4.79 as 917525 (12pp1053)

DEGS D14 56790 A/32 =GB 1571-262

Treating waste water contg. phenol cpds. and opt. formaldehyde - using hydrogen peroxide in presence of copper or iron metal

DEUTSCHE GOLD & SILBER 27.01.77-DT-703268 (27.01.77-DT-703267)

*A21 E14 H09 (A41 E17) (09.07.80) *BE-863-321 +C02f-01/72*

Treatment of an effluent contg. phenol (deriv.) or phenol plus formaldehyde comprises treating with H_2O_2 in the presence of metallic Fe or Cu. The metal may be in the form of sheets, wire or granulates, and partic. treatment is effected in an Fe vessel and in the presence of an iron stirrer. Pref. an activator for the reaction is used, esp. NaCl or insoluble SiO_2.

Also claimed is treatment of such an effluent by adding sodium iron (III) ethylene diamine, tetraacetate trihydrate in an amt. of 0.5-2(1-2)g/l. of effluent and then treating with H_2O_2. The pH of effluent is pref. adjusted to 8.

Such effluents are formed from phenol mfr. coking plants, gas works, low temp. brown coal carbonisation plants, and esp. in phenol-HCHO resin mfr. 19.1.78 as 002196 (14pp963).

COFR- ★ D14 81289 C/46 ★GB 2046-073

Milk pasteurisation appts. - comprises jacketed tank heated by hot water then cooled by ice water pumped through jacket

COF REFRIGERATORS N 24.07.78-GB-030835

X25 (12.11.80) A23c-03/02

A batch-pasteurisation appts. for milk includes a double-walled tank for receiving the milk in the inner tank. Hot water from a reservoir is fed to the jacket of the tank to pasteurise the milk. The hot water is then removed and cold water is pumped through the jacket.

The cold water is prepared in a reservoir provided with evaporator coils of a refrigeration system. The hot and cold water reservoirs are mounted in a common framework connected to the tank by two pipes. Valves control the water flow to the tank.

The appts. pasteurises a batch of milk placed in the tank. 24.7.78 as 030835 (6pp295).

NISH/ ★ D14 81606 C/46 ★J5 5127-130

Coffee bean mixer - comprising casing with inlet port and horizontal mixer shaft

NISHIKAWA T 22.03.79-JA-033644

(01.10.80) B01f-07/08

Mixer comprises a casing having an inlet port at the upper face, and a horizontal mixer shaft laid in the casing. Improvement is that a ribbon conveyor blade is wound coaxially around the shaft to form a slamm dia. ribbon conveyor. Another ribbon conveyor blade is also wound around the small dia. ribbon conveyor coaxially to the shaft but spirally in the opposite direction to the former ribbon blade winding, thus forming a large dia. ribbon conveyor. A clearance as large as two or three beans is formed between the outer dia. of the smaller conveyor and the inner dia. of the larger conveyor. Scraper blades are mounted on the latter conveyor. 22.3.79 as 033644. (5pp26)

MOFO= ★ D14 82002 C/46 ★SU -724-987

Edible materials rheological properties measuring device - has capillary viscometer connected to hydraulic system with accumulator and distributor for pressure

MOSC FOOD IND TECHN 18.09.78-SU-665512

S03 (30.03.80) G01n-11/02

Device for studying the rheological properties of edible materials, comprises a capillary viscometer with a pressure chamber, pump, and a manometer. Measurement accuracy is increased by also including a hydraulic accumulator and a hydraulic distributor. The pump and the pressure chamber are connected to the former via the latter.

Azapov, B.M., Zaichuk, Ts.R., Sharygin, M.A. et al. Bul. 12/30.3.80. 18.9.78 as 665512 (2pp29)

MOMD ★ D14 82035 C/46 ★SU -725-643

Prodn. of edible proteins from animal blood plasma - includes selective pptn. with hydrochloric acid or di:sodium phosphate with heating in presence of linear polymer, e.g. gelatin

MOSCOW MEAT DAIRY INST 11.04.78-SU-604439

A97 (05.04.80) A23j-01/06

Animal blood plasma proteins are obtd. in higher yield by heating the plasma to 50-55°C and precipitating the proteins selectively in four stages at pH 6.8, 6.3, 5.8 and 4.9 respectively, with HCl or Na_2HPO_4.

Aggregation of the protein particles can be promoted by addn. of liner polymer e.g. gelatin, an alginate or polyvinylpyrrolidone in an amt. of 0.1-1.0 wt.% w.r.t. the plasma.

The blood proteins are pptd. selectively, namely hemoglobulin at pH 6.8; γ_1-γ_2 and G-globulins at pH 6.3; fibrinogen, α- and β-globulins at pH 5.8; and albumin at pH 4.9. The pH is decreased stage-wise using an acid (e.g. citric acid) or an acid salt. The temp. is 90-95°C.

Zharinov, A.I., Silaev, M.P., Pengacheva, O.M. et al. Bul. 13/5.4.80. 11.4.78 as 604439 (3pp70)

UAGR= ★ D14 82050 C/46 ★SU -725-690

Mixer for animal feeding materials - has discs of increasing dia. on a drive shaft with deflecting rings and screens, and an upper distributing cone

UKR AGRIC MECH ELEC (LIVE=) 16.11.77-SU-542695

J02 (07.04.80) B01f-07/10

Mixer for coarsely-dispersed materials and liquids is used e.g. for prodn. of animal feedstuff mixts. It has body with loading and unloading pipes, discs on a drive shaft, the dia. of the discs increasing from the top downwards, plus screens with deflecting rings mounted on the inner surfaces of the body. Mixing quality is increased, as a result of the uniform distribution of the components, by fitting a distributing cone on the uppermost disc, pins fastened to the outer surfaces of the cylindrical screens and on the cone, with vanes on the lowest disc. The deflecting rings are made as inverted truncated cones with dividers. The pins are placed at right angles to the drive shaft and the dividers are arranged in alternate rows.

Deshko, V.I., Kukta, G.M., Kulakovskii, I.V. Bul. 13/5.4.80 16.11.77 as 542695 (3pp29)

WHAL/ ★ D14 82439 C/46 ★US 4230-574

Batch filtering deep fryer oil - by adding diatomaceous earth to fryer draining through filter and automatically returning

WHALEY B M 05.01.79-US-001293

(28.10.80) B01d-37/02

In a deep-fat fryer with a single cooking vessel with a heater, removable cover and drain valve, cooking oil is batch filtered by adding diatomaceous earth to the heated oil in the vessel, opening the valve and draining into a pan holding a filter paper to trap the earth, drawing the oil through the filter and returning to the vessel automatically.

Oil is drained into the pan so that it is deflected from splashing directly onto the filter surface, pref. by a metal sheet directly under the opening, to prevent the layer of earth on the filter from being disturbed. Oil is pref. passed through a crumb screen to limit build-up on the filter. 5.1.79 as 001293 (5pp1358)

D15: WATER TREATMENT

DEGS ★ D15 80714 C/46 ★BE -883-046

Measuring concn. of dissolved cpds. - by electrodes sensitive to redox reactions or to ions, reducing concn. to zero by suitable reactant and making second measurement

DEGUSSA AG 02.05.79-DT-917714

E36 J03 S03 (29.10.80) G01n

A process for the determn. of the concn. of a dissolved cpd. pref. cyanide in waste water by means of electrodes sensitive to oxidn.-redn. reactions or to ions, in which the zero pt. of the potential is subject to variations in the course of the measurements, comprises effecting the measurement of the concn. of the cpd. in a diverted stream of the system and measuring first the potential corresp. to the momentary concn. of the cpd.

A reactant is then added which converts the cpd. completely into a cpd. which does not influence, or influences only negligibly, the potential of the measuring chain so that the electrode indicates the potential corresp. to zero concn. of the cpd. The difference between the two potentials gives the effective concn. of the cpd.

The process allows control of continuous chemical processes in which unknown disturbing influences can be exerted on the measuring chain. 29.4.80 as 883046(23pp1192)

JADR/ ★ D15 C/46 ★CS 7900-416

Two/phase detoxification of waste oil emulsions - including additional purification of bentonite

JADRNY J 18.01.79-CS-000416

H07 (31.07.80) C02f-01/40 C02f-09

ZELI/ ★ D15 C/46 ★CS 7900-517

Waste water synthetic sorbent stripper - used to isolate aromatic organic cpds.

ZELINKA L 23.01 79-CS-000517

J01 (31.07.80) C02f-01/28

HOPP/ ★ D15 : 80824 C/46 ★DL -143-758

Highly swellable clay prodn. - clay contg. altered mineral not completely charged with divalent cations by adding specified amt. of water

HOPPE H 25.05.79-DL-213141

H01 J01 (10.09.80) C01b-33/26

In the processing of clays based on a swellable altered mineral not completely charged with divalent cations by treatment with small amts. of water, a homogeneous compsn. is prepd. by adding water to give a water content of 15-50 (15-30)% without predrying.

Process is useful for producing highly swellable clays from less swellable ones. Prod. is useful for clarifying aq. suspensions or solns. and in the prodn. of thick drilling muds. 25.5.79 as 213141 (7pp016)

DANI/ ★ D15 80872 C/46 ★DL -143-894

Phenol removal from water - by passing at given speed through waste or natural adsorptive material, mixts. or layers

DANISCH D 05.01.79-DL-210347

E14 (17.09.80) C02f-01/28

Water is purified by passing through materials, (A), having a high absorption capacity for the contaminants, mixts. or layers of (A), at speed of passage < 20 sec/l.

(A) can be industrial waste prods. or natural materials e.g. sawdust of pine-, spruce- or birch-wood, including bark, expanded clay, peat, broken bricks, brown coal briquette ash.

The odouriferous and taste-impairing contaminants are removed without energy consumption or chemical additives. 5.1.79 as 210347 (5pp200)

DUNG- ★ D15 80873 C/46 ★DL -143-895

Floating sludge layer prevention - in activated sludge tanks by inclined compressed air jets

INST DUNGUNGSFORSCH 25.05.79-DL-213150

(17.09.80) C02f-01/40

Formation of floating cover layers in tanks of activated sludge treatment plant is prevented by air jets. One or more radial pipes are arranged above the tank and air jets are directed at an angle of 10-80° (45°) to the surface. These produce a slow circulatory motion, the flocks are hit periodically by the air jets and the bubbles are freed from the adhering sludge which can settle.

Circulatory motion only concerns the floating top layer and does not impede the settling process. It saves any mechanical removal of the floating layer and improves the clarification efficiency. 25.5.79 as 213150 (7pp39)

BUNA ★ D15 80874 C/46 ★DL -143-896

Purifying waste water contg. cyanide and chloride ions - by electrolysis over electrodes introduced directly in water drainage system

CHEM WERK BUNA VEB 18.05.79-DL-212999

E36 J03 X25 (J01) (17.09.80) C02f-01/46

Cyanide ions are removed from waste waters, which also contain Cl^- ions, by passing the opt. solids-freed waste waters through several electrode gps. connected in series, placed directly in waste water drainage system. The electrode gps. each consist of $\geqslant 2$ electrodes of stable materials, e.g. C rods or powder plates. Reciprocal distance between electrodes is < 10 (< 5) mm. The distance between electrode gps. is at least 5x the length of an electrode gp. The electrodes are switched mono- or bipolarly (pref.) using 4-7 (5-6) v between each 2 neighbouring electrodes at current density > 0.1 (> 0.3) A/dm^2 in the space between the individual electrodes and between the individual electrode gps. in flow direction.

Process is used for detoxicating waste waters from gas purificn. plant in electro-redn. furnaces for CaC_2 prodn. and also from electro-plating and hardening plant, and from HCN, cyanide and nitrile prodn. Process is economical and operates without the use of separate electrolysis cells and ion-generating substances. Waste waters contg. 50 mg/l CN^- can be detoxicated to < 1 mg/l CN^- in $\geqslant 10$ (> 20) min. 18.5.79 as 212999 (9pp200)

GOHM/ ★ D15 80875 C/46 ★DL-143-897

Mercury-contg. waste water purificn. - by pptn. with soluble sulphide and excess sulphide ion oxidn pref. with ferric chloride

GOHMANN P 15.05.79-DL-212880

E32 J01 (17.09.80) C02f-01/52

In Hg-contg. waste water purificn. by pptn. with soluble sulphides, the quantitative HgS removal takes place after the oxidative destruction of the sulphide ions. After adding the precipitant, e.g. NaHS, the oxidising agent, e.g. H_2O_2 but pref. $FeCl_3$, is added at the opt. pH for the oxidising agent.

Ppte. settles well and the decanted supernatant soln. contains < 0.005 mg Hg/l. Purified water is free from toxic sulphide ions. Residue releases no H_2S on acidification. Oxidn. prevents the formation of the $(HgS_2)^{2-}$ complex. 15.5.79 as 212880 (7pp200)

ANDZ D15 90877 X/49 =DS 2616-517

Dewatering press for fabrics or fibrous materials - including clarification sludge from sewage treatment (OE150576)

MASCH ANDRITZ AG 14.05.75-OE-003694

*F07 J01 +P71 Q76 (06.11.80) *DT2616-517 B01d-33/04 B30b-09/24*

A press. for the dewatering of fluids such as sewage sludge which contains fibrous matter in suspension consists of a pre-dewatering zone, a strainer zone, a wedge zone and a press zone. The sludge is squeezed out between two roller pair supported screen webs. In the finel press zone, the webs are taken over rollers which are alternatively mounted on pedestals from the top girder and from the bottom girder of the press frame.

The zigzag shape of them can be varied by altering the mutual distance of the pedestals or by changing them by others of different height or carrying rollers of different diameter. This is a simple way of altering the web path quickly to suit the texture of the fibres. 14. 4. 76 as 616517 (6pp39)

DEKO- D15 49708 A/28 =DS 2800-030

Pyrolysing wet organic residues, esp. drain sludge - after mixing with carbonised solid product

DEUT KOMMUNAL ANL M (ARCA-) 07.01.77-US-757661

*E36 J09 Q73 (06.11.80) *BE-862-701 C10b-53*

Wet sludge such as sewage sludge or from contaminated beaches is converted by pyrolysis into a solid carbonaceous material, which consists at least partly of activated carbon, and pyrolysis gas. The wet sludge is heated in a retort to the exclusion of air to the pyrolysis temp. A part of the discharge carbonaceous material is recycled and mixed with the sludge feed. The vapour produced is passed through a heat exchanger in the flue duct of the combustion chamber and is then returned to the retort.

This assists the drying operation by direct heat exchange and converts the carbonaceous material by chemical reactions to activated carbon. 2. 1. 78 as 800030 (6pp39)

VNOR/ D15 13286 C/08 =DS 2834-899

Biological sewage treatment - in activated sludge basins with suspended bottom aerators for oscillating motion

VON NORDENSKJOLD R 09.08.78-DT-834899

*(06.11.80) *DT2834-899 +C02f-03/22*

Biological sewage treatment system consists of two activated sludge basins, followed by a sludge settling basin and a storage basin. The activated sludge basins are fitted with bottom aerators, each consisting of a horizontal perforated pipe with a vertical supply pipe.

The top of the latter is a branch of a T-piece which is inserted in an air supply hose. The whole aerator assembly is suspended from a rope, stretched across its length. Slight irregularities thus cause each aerator to oscillate and to set the whole line in a migratory pendulum motion.

The plant costs little to erect and to maintain and has excellent aeration results. 9. 8. 78 as 834899 (10pp39)

THOR- ★ D15 81120 C/46 ★DT 3011-106

Prodn. of sparkling drinks - using nozzle for carbon dioxide introduced below liq. surface in bottle to induce jet of gas under pressure to rise as fine bubbles

THORN SVENSKA AB 22.03.80-DT-011106 (23.03.79-SW-002652)

(06.11.80) B01f-03/04

Process to introduce gas into a liquid contained in a bottle involves introducing a nozzle into the neck of the bottle. The nozzle extends just below the liquid surface. A stream of CO_2 is then ejected from the nozzle at sufficient velocity to ensure the jet reaches the bottom of the bottle. It then breaks up into a large number of fine bubbles which rise through the liquid to the surface. Air from the surface is not drawn in by the nozzle.

Used for preparation of sparkling drinks and mineral waters. Allows the use of lower pressures and smaller quantities of CO_2 to acheive the same gasation in the liquid by more efficient absorption of the CO_2. 22.3.80 as 011106 (16pp1053)

MOBI ★ D15 81145 C/46 ★DT 3014-678

Complex metal cyanide removal from industrial effluent - by contact with activated sludge at acid Ph before further waste water processing

MOBIL OIL CORP 16.04.79-US-030418

H05 J01 M11 (06.11.80) C02f-01/58 C02f-09

Waste effluent treatment refining plant for removing entrained oil, suspended solid complex cyanides and for the biological water treatment before discharge, contains means for (i) recovering activated sludge from the biological treatment step of the waste water treatment process, (ii) contacting the activated sludge with the complex cyanide-enriched waste water and for removing the complex cyanides by maintaining pH 3-6 during contact, and (iii) for recovering the complex cyanide-depleted waste water for further processing in refining plant.

Plant is used in removing complex metal cyanides from industrial effluents, esp. acid stripper sump water from petroleum refining, and waste water from electroplating, chemical processing, steel and coke prodn. 16. 4. 80 as 014678(16pp200)

HITA ★ D15 81149 C/46 ★DT 3014-839

Preventing deposition on electrodialysis ion exchanger membranes - by contacting electrolyte soln. with gas bubbles at higher or lower temp.

HITACHI KK (HITG) 18.04.79-JA-046640

J03 X25 (06.11.80) B01d-13/02 C02f-01/46

In electrodialysis by desalting or concentrating an electrolyte soln. in desalting and concn. compartments formed by the alternating side-by-side arrangement of several anion- and cation exchanges membranes between $\geqslant 1$ pair of electrodes, an electrolyte soln. is charged to the desalting and concn. compartments, while a gas is introduced as bubbles into the electrolyte soln. between the ion exchanger membranes. Novelty consists in contacting the electrolyte soln. with the gas bubbles while maintaining a temp. difference, pref. $\geqslant 10$°C, between the gas and the electrolyte soln.

Deposit sepn on ion exchanger membrane surfaces, e.g in sea water electrodialysis, is prevented. Energy consumption is reduced. 17.4.80 as 014839(31pp200)

INTE- D15 86113 A/48 =GB 1571-204

Disinfecting water esp. domestic and drinking water - using hydrogen peroxide and chloramine

INTEROX CHEM LTD 27.05.77-GB-022597

*E16 (E36) (09.07.80) *BE-867-397 +A01n-33/14 A01n-59 C02f-01/50*

Compsn. for disinfecting a water supply comprises an aq. soln. of H_2O_2 and monochloramine in a wt. ratio of 2-50:1 (esp. 4-20:1). The water supply is treated to obtain a concn. of $>$0.02ppm. monochloramine, and $>$0.1ppm. H_2O_2.

Higher concns. of 0.025ppm. of chloramine and 0.5ppm. peroxide can be used to achieve a 100% kill of bacteria without serving as a buffer against much greater and unexpected inoculations of bacteria into the system.

The compsn. is esp. used in covered storage reservoirs (service reservoirs) into which disinfected water is continually being discharged and constantly being withdrawn. 26.5.78 (10pp931).

SURE- ★ D15 81270 C/46 ★GB 1571-224

Chlorine applicator placed in liquid flow - with markings for punching holes sequentially according to chlorination rate required

SUREX SWIMMING POOL 28.07.77-GB-031722

(09.07.80) C02f-01/50

A chlorine applicator for swimming pools comprises a plastic container with an open end. A snap-on lid closes this end. Slow dissolving chlorination material is placed in the container. Markings on the exterior of the container indicate where holes can be made in sequence depending on the rate at which the chlorination material is to be dispensed. In use the applicator is immersed in a flow of water to be chlorinated.

The applicator is placed in the skimmer bowl chamber of the swimming pool. It may also be used in a water holding tank or vehicle, provided they use a water circulation system in which the applicator can be positioned. 17.5.78 (4pp295).

DEGS D15 42326 A/24 =GB 1571-261

Purifying effluents contg. phenol and/or formaldehyde - by oxidation using chlorite(s) in the presence of formaldehyde in given ratios

DEUTSCHE GOLD & SILBER 17.12.76-DT-657192

*A35 E14 J01 (E37) (09.07.80) *DS2657-192 +C02f-01/76*

Purificn. of an effluent of pH 4.5-9 and contg. phenol, or phenol and HCHO with chlorine dioxide is claimed. Process comprises treating effluent with an alkali(ne earth) metal chlorite in presence of HCHO. Ratio by wt. of HCHO to phenol is 0.5-2:1 and molar ratio of sum of phenol and HCHO to chlorite is 1:1.2-2.

Process gives complete elimination of phenol in a relatively simple process. Such effluents occur in phenol mfr., in coking plants, gasworks, brown-coal carbonisation plants, and esp. in phenol-HCHO resins mfr. 16.12.77 as 052423 (15pp963).

AMCY D15 36068 Y/20 #GB 1578-901

Freeze-thaw stable emulsion of acrylamide-acrylic acid copolymer - in which acrylic acid is partially neutralised, the emulsion contg. ethylene oxide -fatty acid adduct surfactant

AMERICAN CYANAMID CO 22.10.75-US-624625 (05.05.77-GB-018967)

*A14 E17 (A97) (12.11.80) *US4022-736 C08l-33*

Freeze-thaw stable, self-inverting water-in-oil emulsion contg. a dispersion of finely divided copolymer particles is claimed. The emulsion comprises (A) 70-95 wt.% aq. phase (w.r.t A+B+C) which is composed of (1) a water soluble acrylamide-(meth)acrylic acid copolymer contg. 25-35 wt.% (meth)acrylic acid, the (meth)acrylic acid being 50-75% neutralised and having a concn. of 27-68 wt.% based on (A) and (2) 32-73 wt.% water based on (A); (B) 5-30 wt.% (based on A+B+C) of liq. hydrocarbon oil; (C) 0.1-15.0 wt.% (w.r.t. A+B+C) of a water-in-oil emulsifying agent disposed between aq. phase and the liq. hydrocarbon; and (D) $>$2.0-3.2% (w.r.t. A+B+C+D) of an inverting surfactant comprising the reaction prod. of 1 mole of a 12-18C fatty alcohol with 6-15 moles of ethylene oxide.

Compsns. are useful as flocculants e.g. for treating sewage, cellulose fibres and fines for retention and freeness, metal ore treatment, etc. 5.5.77 as 018967 (6pp963)

FARH D15 82148 A/46 =GB 1579-007

Powdered cationic polyelectrolyte cpds. for flocculating urban sludge - are mfd. from copolymers of acrylamide and di:methyl-amino-ethyl acrylate

SOC FRAN HOECHST 16.05.77-FR-014994

*A97 (A14) (12.11.80) *BE-867-009 C02f-01/56 C08f-220/34*

Water-soluble powder form cationic polyelectrolytes comprise copolymer of acrylamide and quaternised or salified dimethylaminoethyl acrylate contg., in molar proportions, 10-50% of cationic units distributed regularly along the copolymer chains, having an intrinsic viscosity $>$6d/gm. (determined at 30°C, in molar aq. NaCl) and a cationicity (measured in a buffered aq. $CHCl_3$ medium in the presence of methyl yellow with a 0.004M aq. soln. of sodium dioctylsulphosuccinate and expressed in milliquivalents per gram) $>$90% of the theoretical cationicity such as defined by the number of cationic milliquivalents theoretically present per gram of copolymer.

The polyelectrolytes are used for the treatment of urban waste as a flocculant. 9.5.78 as 018503 (8pp977).

FARB D15 08350 A/05 =GB 1579-073

Injector nozzles with deflectors for gas-liquid mixing - producing intimate contact between the fluid components and thereby promoting mass transfer more efficiently

BAYER AG 31.07.76-DT-634496

*J02 +Q35 Q56 (D16) (12.11.80) *BE-857-292 F04f-05/04*

Intensive mass transfer injection has a jet nozzle with a deflector on the axis of the jet spaced by 1-3 x the smallest dia. of the jet from the outlet. A mixing chamber is downstream of the deflector.

The deflector is pref. a cylindrical or conical body, or an eccentric tongue. The length of the chamber is pref. 5-20 x the smallest dia. and is annular.

The efficiency of the injector is maintained with increased jet dia. 29.7.77 as 031937 (10pp1376).

DAMO- D15 57572 Y/33 =GB 1579-177

Water heater with precise thermostatic control - can be steam sterilized for hospital and laboratory applications

DAMOND ENTER ELEC S 12.04.76-FR-010640

*T06 +P34 Q74 Q78 (12.11.80) *BE-853-493 F24h-01/20*

A thermostatically controlled container for dispensing liquid at selected temp., e.g. rinse water in an artificial kidney, includes a tank spaced within an outer heat-insulating tank which has connections for circulating heat-transfer fluid through the space and a heater for fluid in the space.

The inner tank has inlet and dispensing outlet for a pure liquid and has an elongate hollow housing extending through it holding a heater with a thermostatic control for the pure liquid. There are pref.-regularly spaced parallel fins on both inner and outer tanks in the space. The inner tank can pref. be connected either to a treated liquid supply line or to a steam generator. 7.4.77 as 014808 (4pp1358).

PIAZ/ ★ D15 C/46 ★IT 1046-757

Portable water purifier

PIAZZA P 10.01.75-IT-047622

(31.07.80) C02f

SUMQ ★ D15 81377 C/46 ★J5 5125-282

Sacrificial anode for titanium tube and copper alloy tube plate - is ferrous alloy contg. nickel and chromium

SUMITOMO METAL IND KK 20.03.79-JA-032676

M14 (M27) (26.09.80) C23f-13

Sacrifice anode is employed in a condenser in power plant using sea water as coolant, appts. for converting sea water to fresh water etc., and consists of Ni $>$1.0%, Cr

1.5-11.0%, (Cr+Ni) > 8.0%, (Cr+Ni/8) < 12.0%, and the balance Fe with incidental impurities.

The sacrifice anode is required to meet the following conditions: (1) it has electric potential baser than that of the copper alloy and is actively dissolvable in sea water, and this is attained by (Cr+Ni/8) < 12%, (2) it has electric potential nobler than hydrogen absorbing potential of titanium, and this is attained by Ni ⩾ 1.0%, Cr > 15% and (Cr+Ni) > 8.0%, (3) it produces little rust by soln. of the iron, which rust promotes hydrogen absorption of the titanium tube, and this is attained by (Cr+Ni) > 8.0%, in the Ni-Cr-Fe alloy respectively. 20.3.79 as 032676. (3pp53)

KURK ★ D15 81503 C/46 ★J5 5126-522

Active carbon regenerator - for waste water treatment, using hot gas uniformly jetted up from bed

KURITA WATER IND KK 22.03.79-JA-032229

E36 J01 (30.09.80) B01j-20/34 C01b-31/08

Regenerator for active carbon used for adsorbing impurities contained in waste water etc. is described. The active C is added to a regenerating column by jetting a hot gas upwards into a packed bed formed in the column so that the carbon is fluidised and regenerated by the gas.

Improvement is that the packed bed is formed in a vertical cylindrical area beneath a regenerating chamber and supported by a horizontal support plate, below which a combustion chamber is formed, so that the hot gas is uniformly jetted up from the bed over its cross sectional area at a rate of ⩽ 25 cm/sec.

The carbon is maintained in a fluidised state, even if wetted. 22.3.79 as 032229. (3pp26)

KURK ★ D15 81504 C/46 ★J5 5126-523

Appts. for regeneration of degraded active carbon - has regeneration chamber communicating with combustion chamber through packed bed, hot gas being rectified before being jetted through bed

KURITA WATER IND KK 22.03.79-JA-032230

E36 J01 (30.09.80) B01j-20/34 C01b-31/08

New appts. regenerates degraded active carbon used for adsorbing impurities contained in waste waters etc. It comprises a vertical column, in which a regenerating chamber communicates with a combustion chamber through a packed bed. The chamber is formed in a lower space of the column to supply a hot gas upward into the renerating chamber for fluidising and regenerating the carbon fed into it. The gas is well rectified thus avoiding "punch-through" of the bed. An upper layer of the packed bed is composed of small refractory grains baked with molten salts such as silicates to agglomerate the grains. 22.3.79 as 032230. (3pp26)

KURK ★ D15 81505 C/46 ★J5 5126-524

Appts. for regenerating spent activated carbon - used for adsorbing impurities from waste, water, includes vertical column having combustion chamber for producing hot gas

KURITA WATER IND KK 22.03.79-JA-032231

E36 J01 (30.09.80) B01j-20/34 C01b-31/08

Appts. comprises vertical column having a combustion chamber for producing a hot gas for regenerating the carbon. The object is to take out regenerated hot active carbon and store in a water tank, without steam explosion upon contact of the hot carbon with water in the tank. The tank is located below the lower end of a pipe for draining the regenerated active carbon. Water sprayer is disposed near the lower end of the pipe to spray coolant such as water over the C drained from the pipe. 22.3.79 as 032231. (2pp26)

KURK ★ D15 81506 C/46 ★J5 5126-525

Dewatering device for granular carbon slurry - having hopper with drain ports connected to screw conveyor to avoid formation of water layer in conveyor upper space

KURITA WATER IND KK 22.03.79-JA-032232

E36 J01 (30.09.80) B01j-20/34 C01b-31/08

Device in a dewatering screw conveyor has an inlet at the lower end and an outlet at the upper end. C is fed into a heating regenerator furnace. Water layer tends to form in an upper space of the conveyor. To avoid this, to the inlet of the screw conveyor the lower end of a hopper for feeding the C is connected. Hopper is provided with a water drain port at a level below the outlet of the conveyor. Conveyor is provided with an auxiliary water drain port at a level near the level of the drain port. 22.3.79 as 032232. (3pp26)

KURK ★ D15 81507 C/46 ★J5 5126-526

Feeding degraded active carbon into regenerator furnace - with intermittent operation of conveyor to allow thorough fluidisation of carbon and reduce furnace load

KURITA WATER IND KK 22.03.79-JA-032233

E03 J01 (30.09.80) B01j-20/34 C01b-31/08

Method is for feeding degraded active C into a hot regenerating furnace, where it is to fluidise and regenerate. Screw conveyor cor conveying the C is installed so that its inlet is located at the lower end and outlet at the upper end. Hopper for feeding a slurry of C is connected to the lower inlet of the conveyor, whose outlet is connected to the feed port of the furnace. Object is to regenerate the C and reduce the load upon the furnace.

Novelty is in that the conveyor is operated intermittently with intervals of about 60 secs. so that the C fed into the furnace is fluidised and part of the C in the conveyor, above its water drain port, is dewatered. 22.3.79 as 032233. (3pp26)

HITB ★ D15 81508 C/46 ★J5 5126-527

Device for regenerating active carbon powder - in which heat exchanger is disposed in upper section of column to control wall temp. and atmos. temp. for improved regeneration efficiency

HITACHI CHEMICAL KK 22.03.79-JA-033923

E36 J01 (30.09.80) B01j-20/34 C01b-31/08

The device comprises a column provided with a structure for heating the carbon stirred in the column, while a gas produced in the regeneration process is exhausted from a port formed at the upper end of the column. The object is to avoid scattering of the carbon powder carried on the produced gas and increase the regeneration efficiency.

A heat exchanger is disposed in an upper space of the column to control so that the temp. of an upper area of the wall of the column is controlled to 1000°C while the temp. of an atmos. in the upper space of the column is kept <400°C. 22.3.79 as 033923. (4pp26)

TSUM/ ★ D15 81582 C/46 ★J5 5127-102

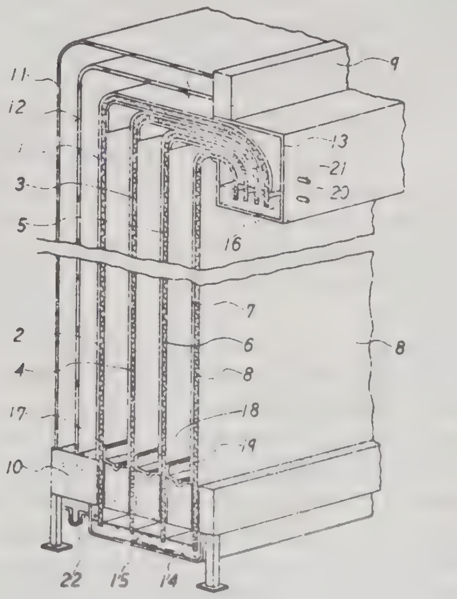
Liq. evapn. employing solar energy - using heat collector plates, two water tanks and reflective cooling plates

TSUMURA K 22.03.79-JA-034051

(01.10.80) B01d-01/22 B01d-03 C02f-01/14

A device and method for evaporating a liq. such as sea water, utilising solar energy, are claimed. The device comprises a water tank and heat collector plates (1) stretched across a frame and covered with transparent covers. The object is to efficiently and economically evaporate the liq.

Each collector plate is baked with a porous sheet for absorbing condensation of water vapour by the sunshine. The sheet extends to the water tank (14) at the lower end and to another water tank (13) at the other end. The latter tank is located above the former. Reflective cooling plates (3), (5), (7) are arranged at the back of the collector plates with leaving spaces and fixed to the frames. Each cooling place for condensing the water vapour is also backed with the similar porous sheet. 22.3.79 as



034051. (12pp26)

TOKE ★ D15 81590 C/46 ★J5 5127-110
Sewage treatment - with control of sludge drain from first sedimentation pond
TOKYO SHIBAURA ELEC LTD 24.03.79-JA-033818
(01.10.80) B01d-21/24

A method for controlling the operation for draining sludge pptd. in the bottom of a first sedimentation pont in sewage treatment is claimed. The flow rate of sewage water flowing into the pond and the content of suspended solids in the water vary with time to control sludge pptn.

The object is to control the sludge draining operation to avoid over- and under-draining of the sludge. The flow rate of the sewage water into the pond and suspended solids amt. are measured to calculate the flow rate of the suspended solids. Based on this flow rate, an amt. of sludge pptd. for a specified time is calculated to determine the operation time of sludge draining pumps. 24.3.79 as 033818. (2pp26)

HIEJ ★ D15 81591 C/46 ★J5 5127-111
Appts. for filtering waste waters - comprises filter tank contg. filter medium supported by upper and lower porous support plates
HITACHI PLANT ENG CONST 23.03.79-JA-033252
(01.10.80) B01d-23/24 B01d-29/38

Appts. comprises a filter tank contg. a filtering medium supported by an upper and lower porous support plates. The object is to backwash the filtering medium to avoid clogging of the support plates and facilitate maintenance. The novelty is in that spherical balls are packed in a space defined by both support plates and side wall of the tank, as a filtering medium. A water feed port (for raw water) is formed at the upper end of the tank to feed the raw water into it with pressure. The water flows down through small gaps between spherical balls of 5-50 mm. in dia. A back washing water is flushed in the reverse way to the raw water. 23.3.79 as 033252. (3pp26)

HIEJ ★ D15 81592 C/46 ★J5 5127-112
Appts. for filtering waste waters - includes cleaning means comprising nozzles which jet mixt. or a gas and water onto the filter material
HITACHI PLANT ENG CONST 26.03.79-JA-035973
(01.10.80) B01d-23/24

Appts. comprises filter tank contg. filtering media and provided with means for cleaning the filtering media. The object is to increase the cleaning effect and assure a stable operation for filtration.

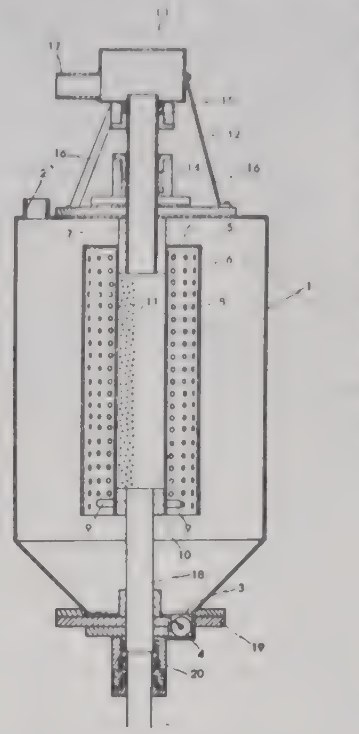
The cleaning means comprises short pipes, nozzles just beneath the pipes, and means for feeding a fluid consisting of a gas and water to be jetted into the pipes. Each pipe has an open lower end and is so disposed relative to corresp. nozzle that the fluid jetted from the nozzle sucks and carries the filtering medium. Two kinds of filtering media having different grain sizes are charged in two layers of a bed formed in a space of the tank. 26.3.79 as 035973. (3pp26)

KURK ★ D15 81593 C/46 ★J5 5127-114
Filter press for treating dirty or waste water - with removable cylinder easily mounted on machine frame
KURITA KIKAI SEISAK 22.03.79-JA-033627
(01.10.80) B01d-25/14

Filter press is for filtering dirty or waste water. It comprises a piston rod inserted into a cylinder, a movable end plate connected to the piston rod, and a stop face formed at the machine frame having a support face for supporting the cylinder. Object is to easily mount and remove the cylinder on the machine frame, reducing the space required for maintenance of a hydraulic device of the cylinder. Opening is bored through the frame to removably insert the cylinder into the opening. Stoppers are provided at the cylinder so as to contact with both end faces of the frame. One of them is made removable from the cylinder upon removing it. 22.3.79 as 033627. (6pp26)

MISU- ★ D15 81594 C/46 ★J5 5127-115
Liq. separator e.g. for sludge - comprises vertical tank with upper feed port and lower drain port, a rotatable vertical shaft and an inner drum with bore holes for water
MISUZU KOGYO KK 02.02.79-JA-011611
(01.10.80) B01d-29/10

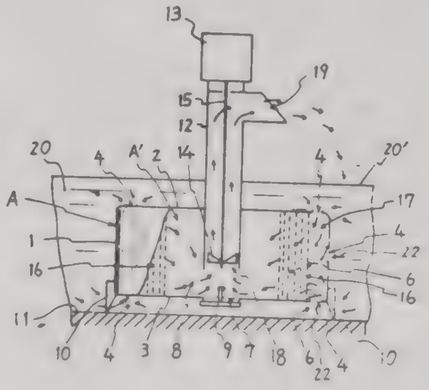
Device comprises a vertical tank (1) having a liq. feed port (2) at an upper end and drain port (3) at a lower end, and a perforated outer drum (5). The object is to effectively separate the water content from raw liq. even if contg. very fine solids. A vertical shaft is rotatably inserted in a central area of the tank, passing through the outer drum. An inner polygonal drum (8) is coaxially inserted into the outer drum and connected to the shaft and has bore-holes for sucking the water from outside into a drain vertical pipe (12) connected to the upper end face. 2.2.79 as 011611. (5pp26)



NSSK ★ D15 81596 C/46 ★J5 5127-117
Water filter e.g. for pond - comprises tank, filter medium and pure water chamber, with unidirectional valve in suction port
NISSEI SANGYO KK 26.03.79-JA-035194
(01.10.80) B01d-35/02

Device for filtering dirty water e.g. in a pond comprises a filter tank (A) to be immersed in the pond, filtering medium charged in a dirty water chamber (17) formed in the tank at the side-wall side and pure water chamber (8) formed inside the chamber (17). The chamber (8) has a drain port (8), from which a purified water is drained and returned to the pond.

Improvement is that a unidirectional valve is inserted into a suction port (4) formed at the dirty water chamber (17) to avoid reverse flow of the water and a check valve (9) is inserted into the drain port to avoid reverse flow of the purified water into the chamber (8). 26.3.79 as 035194. (3pp26)



HITA ★ D15 81598 C/46 ★J5 5127-119
Operating several filter tanks in water purificn. plant - where the number of tank operating may be selected according to water demand
HITACHI KK 22.03.79-JA-032354
(01.10.80) B01d-37/04

The object is to assure a stable operation against peak water demands, without overloading one or more of the tanks. The number of the tanks required for a predicted water demand for N hrs., and the number of tanks, which will be able to filter after N hrs., among the ponds under operation, are calculated. If the former number is larger than the latter, other ponds remaining unoperated are forcibly washed to cope with the peak water demand with lapse of N hrs. 22.3.79 as 032354. (3pp26)

AGEN ★ D15 81618 C/46 ★J5 5127-143
Adsorbent for uranium recovery e.g. from sea water - obtd. by reacting hydrazide polyacrylate and titanium cpd. to form gel substance contg. water
AGENCY OF IND SCI TECH 22.03.79-JA-033996
A97 E31 K05 (01.10.80) B01j-20/22 C01g-43

Uranium adsorbing agent consists of a gel type substance contg. water which is a reaction prod. of hydrazide polyacrylate and a Ti cpd. The adsorbing agent is produced by carrying out a reaction between hydrazide polyacrylate and a Ti cpd.

The reaction prod. between hydrazide polyacrylate and a Ti cpd., which is insoluble gel, is found to adsorb uranium very efficiently. Thus the gel cpd. contg. Ti can be used in a dil. soln. of uranium such as sea water to adsorb uranium effectively. When the uranium adsorbing agent is filled in a column and sea water is passed through the column, uranium can be recovered at the adsorbing ratio of 60μg/g.-Ad. 6 days (500μg/g.-Ti 6 days). 22.3.79 as 033996. (4pp55)

TORN ★ D15 81622 C/46 ★J5 5127-190
Removing inorganic phosphorus from waste water - using less phosphorus removing agent and without tert. treatment appts.
TORAY ENG KK 23.03.79-JA-034800
(01.10.80) C02f-01/28 C02f-03/06

Inorganic P components are almost completely removed from sec. effluent resulting from activated sludge (or contact oxidn.) treatment of waste waters by supplying P-removing agent, e.g. $FeCl_3$, alum, polyaluminium chloride, etc. and a sludge sepd. in a settling vessel to a contact oxidn. vessel at a region between the centre of the contact oxidn. vessel and its wall with an outlet.

The inorganic components are thus removed together with organic matter without any tert. treatment appts., and simultaneously the amt. of P-removing agent to be used is decreased, and transparency of treated water is improved. 23.3.79 as 034800. (3pp34)

CHUS- ★ D15 81781 C/46 ★J5 5128-147
Coulometric titration method for determining total hardness of water - independent of turbidity of sample soln.
CHUSHO KIGYO SHINKO 27.03.79-JA-036058
A97 J04 (03.10.80) G01n-27/44 G01n-33/18

Process comprises (a) adding sample water contg. Ca^{2+}, Mg^{2+}, etc. to an electrolytic liq. consisting of copper-ethylenediaminetetraacetic acid aq. soln. buffered to pH 8.0-9.5 with $\geqslant$ 0.2 M ammonium salt, $\sim$0.005% PVA (electrode stabiliser) and hydrazine salt (chemical deoxidiser) 0.03-0.1 g./20 ml. liq. for liberating Cu^{2+} by the reaction of EDTA with part of Ca^{2+}, Mg^{2+}, etc.; (b) electrolysing the electrolytic liq. to reduce the liberated Cu^{2+} ions; and (c) detecting the end point by double Cu polarisation potential difference method (using two Cu indicator electrodes).

Total hardness (the sum of Ca^{2+} and Mg^{2+}) of water can be easily determined without requiring a skilful technique and without being affected by the colouration or turbidity of sample soln. Total hardness is expressed by the amt. of $CaCO_3$ corresponding to the total amt. of dissolved Ca^{2+} and Mg^{2+} in water. 27.3.79 as 036058. (3pp50)

AQAC D15 23354 U/17 =J8 0040-281
Water distillation unit - for prodn of potable water from salt or brackish water
AQUA CHEM INC 04.10.71-US-186178
*(17.10.80) *NL7212-748 B01d-01/26*

A multistage evaporator, esp. for distillation of seawater to fresh water, operates as follows: in each stage, a portion of the feed liquid (salt water) is evaporated, while a portion of the heating steam is condensed, the steam evaporated from the feed liquid constituting the steam feed for the next stage, while the unevaporated liquid passes as feed liquid to the next stage.

Each stage comprises tube bundles arranged horizontally substantially radially relative to the vertical axis of the heat exchanger, and with their outlets nearest this axis. 29.6.72 as 064535 (clg.4.10.71-US-186178) B01d-1/26 (17.10.80) AQUA-CHEM. INC. (12pp) (J48048379)

ESSO D15 22567 T/14 =J8 0040-283
Dispersed phase removal - by droplets coated with a surface active membrane
ESSO RES & ENG CO 25.02.71-US-119005
*H03 J01 (17.10.80) *BE-773-060 +B01d-17/02 B01d-21/* C02f-01/28*

In a process for eliminating a dispersed phase from an external phase, the dispersed phase is brought into contact with a surface active agent. The droplets consist of an internal phase coated with a surface active membrane. The dispersed phase reacts with a surface active membrane and is eliminated with the coated droplets. 28.9.71 as 075748 (clg.25.2.71-US-119005) B01d-17/02, 21/02, C02f-1/28 (17.10.80) ESSO RESEARCH & ENGINEERING CO. (-pp) (J48030688)

KURK D15 53495 B/29 =J8 0040-285
Treating large quantities of sludge - providing clean filter liq. and giving high dewatering efficiency
KURITA WATER IND KK 19.11.77-JA-138418
*(17.10.80) *J54071-773 +B01d-33/24*

Sludge-form liq. is introduced from supply inlets into a treatment chamber. Axially spaced fins are attached through spacers to a shaft which is driven from a motor to form a filter element.

Adjacent filter elements are disposed to insert the fins of one element in clearances between the fins of other elements. Filter water is axially removed through holes of water-removable filter elements into a filter liq.chamber so that a sludge is transferred by water-unremovable filter elements to be discharged from a sludge outlet. The interval between the upper and lower filter elements in gradually reduced towards the sludge outlet. 19.11.77 as 138418, B01d-33/24 (17.10.80) KURITA WATER IND. KK (5pp35) (J54071773)

KANK- D15 60573 B/33 =J8 0040-314
Treating exhaust water exuded from city waste - by adding granulated slag and modified granulated slag, adjusting pH to below 4 and adding activated carbon
KANKYO GIJUTSU KAIH 19.12.77-JA-151778
*(17.10.80) *J54084-353 +C02f-01/28*

Method comprises (a) treating the exhaust water with granulated slag of about 100 mesh in particle size, (b) treating the exhaust water with a modified granulated slag formed by adding a monovalent metal carbonate and/or a divalent metal carbonate to the slag and firing it and (c) controlling the pH of the exhaust water to $<$4 using mineral acid, and then treating it with activated carbon for the removal of COD and colour of the exhaust water from cit waste.

In an example, an exhaust water of COD 1396 ppm, colour (absorbance) 2.340(457 nm) and pH 8.68 was treated by the method, forming a treated water of COD 136 ppm, colour 0.042(457 nm) and pH 7.92. 19.12.77 as 151778 C02f-1/28 (17.10.80) KANKYO GIJUTSU KAIH (9pp) (J54084353)

AGEN D15 63933 B/35 =J8 0040-315
Cyanogen cpd. recovery from waste water - by regulating at mildly acidic pH, contacting with active carbon and washing active carbon with alkali
AGENCY OF IND SCI TECH 28.12.77-JA-159129
*A41 E35 G06 (E16) (17.10.80) *J54091-962 +C02f-01/28*

Cyanogen cpds. partic. stable cyanogen complexes or organic cyanogen cpds. are recovered from industrial effluents by regulating waste water to be treated to pH 2-4.5 (2.5-3.5) in advance by the addn. of an alkali or an acid and contacting with granular or powdered activated carbon by either contact filtration, fixed bed moving bed or fluidised bed methods, and washing the use activated carbon with an alkaline soln. e.g. an aq.soln. of NaOH etc. of pH $\geqslant$ 1 ($\geqslant$ 13.5) for regeneration.

Method effectively and economically removes or recovers cyanogen cpds. present in waste water discharged from photographic industry, pigment industry, organic chemicals industry, acrylonitrile mfg. industry, etc. The used activated carbon is also regenerated. 28.12.77 as 159129 C02f-1/28 (17.10.80) AGENCY OF IND.SCI.TECH. (4pp) (J54091962)

INOZ ★ D15 81883 C/46 ★J8 0040-317
Soluble electrode for use in waste water treatment - comprises alloy contg. metals of different ionisation potential, and sodium fluoride and/or calcium fluoride
INOUE JAPAX RES INC 20.09.73-JA-106166
J03 (17.10.80) C02f-01/46 C25b-11/02

Self-soluble electrode comprises alloy contg. (i) Al, Fe, Mg and/or Pb, (ii) Mg, Ca, K, Li, Ti, Fe and/or Si differring in ionisation potential from (i) and (iii) NaF and/or CaF_2, mechanically cut into chips and integrated into porous sheet. The ratio of (i) to (ii)+(iii) is 95/5 to 70/30. 20.9.73 as 106166, C02f-1/46, C25b-11/02 (17.10.80) INOUE JAPAX RES.INST. (3pp83) (J50056376)

MITO D15 00736 X/01 =J8 0040-319
Flouride-citrate waste water treatment - calcium added at a higher pH
MITSUBISHI HEAVY IND KK 29.08.73-JA-096874
*(17.10.80) *J50045-456 +C02f-01/58*

Waste waters contg. F- and citrate as boiler cleaning agents are treated by adding Ca at a higher pH, In an example, waste water contg. citrate boiler-cleaning agents (ammonium citrate 3, inhibitors 0.5 NH_4F 1.5% Fe 4000, F- 10000, and COD 16800 ppm, pH 5.0) was mixed with $Ca(OH)_2$ and the pH was adjusted to 12.5. Mixt. was aerated and to this was added a flocculating agent. Mixt. was allowed to stand to separate the supernatant liq. and sludge. Colourless supernatant liq. contg. Fe $<$ 1, F- 3, and COD 90 ppm, was adjusted to pH 8 and discharged. 29.8.73 as 096874, C02f-1/58 (17.10.80) MITSUBISHI HEAVY IND. KK. (9pp) (J50045456)

KAOS D15 01222 Y/01 =J8 0041-122
Dispersion of foam in aq. surfactant soln. - by addn. of cyclode xtrin in an amt. equiv. to that of the surfactant
KAO SOAP KK 16.05.75-JA-058369
*A95 (A11 D16 D17) (22.10.80) *J51133-960 +B01d-19/04*

The foam in an aq.surfactant soln. is dispersed by adding cyclodextrin. The cyclodextrin is treating starch with an enzyme such as Bacillus, macerans amylase, etc. where 6-8 glucose residues are bonded to each other in α-1, 4-posns.

An amt. of cyclodextrin equal to the amt. of surfactant in the aq.soln. is added to completely disperse the foam. Method is effective for concns. of surfactant ranging from a few hundred ppm to 10 n%. 16.5.75 as 058369, B01d-19/04 (22.10.80) KAO SOAP KK (4pp) (J51133960)

KAWJ ★ D15 81919 C/46 ★J8 0041-124
Sludge separator device - comprises a centre tube in a tank with spiral plates on outer of tube and a damper pipe on its lower end
KAWASAKI HEAVY IND KK 00.00.76-JA-014289
(22.10.80) B01d-21/ B01d-43 C02f-11/12*

A device for sepg. sludge contg. a liq. such as dirty water comprises a centre tube rotatably mounted in a tank, spiral plates mounted on the outer side wall of the tube, and a damper pipe fitted into the lower end of the tube, to feed the sludge with liq. into the tube. 27.9.73 as 014289, B01d-21/01, 43/00, C02f-11/12 (22.10.80) KAWASAKI HEAVY IND. KK (4pp26) (J51105670)

TSUB/ ★ D15 81920 C/46 ★J8 0041-125
Appts. for washing sludge sedimentation tank - includes water spray nozzle, water suction pipes and carriage on which pipes and nozzles are mounted
TSUBOKAWA T 17.03.76-JA-028936
(22.10.80) B01d-21/02

Appts. for washing a sludge sedimentation tank having inclined plates for sepg. the sludge during ascending dirty water to be purified is described. Appts. comprises water spray nozzles directed to the upper end of the plate, water suction pipes opened at the lower end of the plate, and a carriage, on which the pipes and nozzles are mounted. 17.3.76 as 028936, B01d-21/02 (22.10.80) TSUBOKAWA T (6pp26) (J52135461)

HITT ★ D15 81921 C/46 ★J8 0041-12
Sludge separator - comprising agglomerant mixing tank, water fee port, agglomerant stirring tank and sand filter tank
HITACHI CONSTRUCT MACH 02.05.76-JA-050376
(22.10.80) B01d-21/08

Device for treating waste water such as industrial waste comprises an agglomerant mixing tank, connected to a water feed port, agglomeration stirring tank connected to the mixing tank, sludge separator tank connected to the stirring tank and sand filter tank. 2.5.76 as 050376, B01d 21/08 (22.10.80) HITACHI CONSTRUCT MACH (8pp26) (J52134254)

NIKL ★ D15 81922 C/46 ★J8 0041-127
Waste water treating appts. - comprising rapid agglomerant mixer chamber, agglomerating chamber, and precipitating chamber
JAPAN STEEL WORKS 19.01.76-JA-004026
(22.10.80) B01d-21/24

A device for treating a dirty water comprises a rapid agglomerant mixer chamber, agglomerating chamber, and precipitating chamber arranged in this order. A screw conveyer is laid on the bottom of the precipitating chamber and is provided with magnets at a screw conveyer gutter located at the bottom of this chamber. 19.1.76 as 004026 B01d-21/24 (22.10.80) JAPAN STEEL WORKS (4pp26) (J52087858)

KURI- ★ D15 81923 C/46 ★J8 0041-128
Washing filter cloths of filter press - where nozzles are moved to location between opened filter plates, then moved down while spraying water
KURITA KIKAI SEISAK 25.02.75-JA-023572
(22.10.80) B01d-25/12

Method for filtering a dirty water using a filter, press is claimed where after ending the filtering process, nozzles are moved so as to locate between opened filter plates, then moved down during spraying washing water over filter cloths laid on the plates and moved up after stopping water spraying. 25.2.75 as 023572, B01d-25/12 (22.10.80) KURITA KIKAI SEISAKUSHO KK (14pp26) (J51097867)

HITA D15 15294 Y/09 =J8 0041-160
Anaerobic digestion of organic waste liquor - giving improved gas yield of methane, and carbon dioxide by prod.
HITACHI KK 04.07.75-JA-081810
*A35 (22.10.80) *J52005-961 +C02f-03/28 C02f-11/04*

Process comprises (1) treating the liquor anaerobically with a liquefying bacteria to convert a polymer cpd. into a lower molecular cpd. and an organic component into a volatile organic acid, (2) sepg. a liquor obtained in (1) into an organic acid-contg. liquor and a liquefied sludge contg.the liquefying bacteria, (3) treating anaerobically the organic acid-contg. liquor from (2) with a gasifying bacteria to convert the organic acid into CH_4 and CO_2, (4) sepg. a digested sludge contg. the gasifying bacteria from the liquor treated in the step (3), (5) recycling a portion of the liquefied sldge obtd. in (2) to the step (1) on losing its biological activity, and (6) supplying the remaining portion of the liquefied sludge to the step (3).

In a modification, a portion of the digested sludge obtd. in step (4) is recycled to step (3).

The gas yield may be improved without lowering the efficiency. A portion of the digested sludge obtd. by solid-liquid sepn. from the liquor subjected to the gasifying step is resupplied to the gasifying step. 4.7.75 as 081810, C02f-3/28, 11/04 (22.10.80) HITACHI KK (6pp34) (J52005961)

STAH/ ★ D15 C/46 ★NO 8000-886
Sewage aeration basin with revolving drum
STAHLER T 27.03.79-DT-911975
(20.10.80) C02f

HEAT= ★ D15 81961 C/46 ★SU -724-450
Water purifying filter end of work cycle indicator - using divider with input from flow-rate sensor and from pressure drop sensor via square root extractor
HEAT ENG RES 02.10.78-SU-673222
T06 (30.03.80) C02b-01/40 G05d-27

Earlier appts. for signalling the end of the work cycle of a mechanical filter at a water purifying plant contains a filter pressure drop sensor and a secondary converter. For greater economy, a flowrate sensor is introduced for the water being treated along with a divider and square-root extractor. The resulting signal characterises a hydraulic resistance factor which is a more accurate index of filter operability. Filtering can now be related to how badly it is needed.

New circuitry contains the filter, pressure drop sensor, square-root extractor, divider, flowrate sensor and a secondary converter.

Efimov, G.V. Bul. 12/30.3.80. 2.10.78 as 673222 (2pp)

CIVI= ★ D15 81962 C/46 ★SU -724-453
High capacity aero-tanks sewage treatment control appts. - has outputs taken from sewage flow-rate and dissolved oxygen sensors to logic circuit regulating blowers
CIVIL ENG RES 28.07.78-SU-649875
(30.03.80) C02c-01/02 G05d-27

Earlier appts. for control of aerotanks used in treatment of domestic and industrial sewage contains sewage flow-rate and dissolved oxygen sensors along with air blowers and an actuator for active slime feed into the sewage flow. To improve treatment by greater sensitivity of the controls, the sensors are connected to a logic circuit at the input to the blowers and actuator. New appts. is useful for greater throughputs of 100 thousand to one million m^3/day and energy is saved.

Popkovich, G.S., Gorinshtein, L.L. Bul. 12/30.3.80. 28.7.78 as 649875 (2pp840)

TUPO= ★ D15 81963 C/46 ★SU -724-456
Industrial water softening plant liming control - by variation of lime milk dose with sign of each next dose dependent on sign of difference between conductance indications
TULA POWER CONTR 05.06.78-SU-632442
T06 (30.03.80) C02c-01/18 G05d-27

Earlier control of liming of water at water softening plants in industry relates the does of lime milk to the running difference between electric conductance of the limed water and the extremal value of the conductance. For stability of control at the conductance extremum, the lime milk dose is varied discretely and the sign of each next dose depends on the sign of any difference between conductance sensings. Control is no longer interrupted on passing through the extremum if the liming changes abruptly.

Zagoskin, E.I. Bul. 12/30.3.80. 5.6.78 as 632442 (2pp)

PONO/ ★ D15 82046 C/46 ★SU -725-686
Multistage hydrocyclone for purifying river water - has cylindrical body with conical diaphragms divided into pairs, each with a diaphragm and cylindrical baffle
PONOMAREV V G 02.11.77-SU-539036
P41 (08.04.80) B01d-21/26 B04c-05/10

Multistage hydrocyclone, for purifying river water mechanically, has cylindrical body with conical diaphragms inside it spaced equidistantly from one another, antechamber with distributing vanes, and pipes to admit impure water and take away pure water and sludge. Operation is improved and purificn. efficiency is increased by lengthening the route of the moving flow and the dispersal withdrawal of the clarified water. This is achieved by fitting the peripheral parts of each pair of diaphragms with cylindrical baffles which point towards one another and overlap, and the upper diaphragm of each pair with vertical risers of rhomboid section.

Ponomarev, V.G., Skirdov, I.V., Ivkin, P.A. Bul. 13/5.4.80. 2.11.77 as 539036 (2pp29)

AGRI= ★ D15 82188 C/46 ★SU -726-027
Surface aerator for aq. waste purificn. - has vertical support and aerating device on a pontoon linked by a flexible element to a drum
AGRIC COMPLEX BIOL 07.12.76-SU-428027
(05.04.80) C02c-01/10

Surface aerator e.g. for aq. effluents discharged from animal-rearing and industrial complexes comprises vertical support, aerating device on a pontoon linked to the support by a flexible element. Aeration is intensified, as a result of increasing the area over which the aerator moves, by making the pontoon wing-shaped in plan and positioning the aerator on it so that the relative centres of gravity are displaced in the direction of the widening-out part of the pontoon.

Butaev, L.S., Glazkov, I.K., Kalikin, I.A. et al. Bul.13/5.4.80. 7.12.76 as 428027 (3pp29)

UCEL= ★ D15 82190 C/46 ★SU -726-029
Removing finely suspended impurities from paper pulp mfg. waste water - by feeding through filter layer formed on waste mixed with countercurrent and perpendicular gas streams in an electric field
UKR CELL-PAPER INST 03.01.77-SU-437452
F09 (05.04.80) C02c-05/02

Waste water from the paper industry can be cleaned to remove finely suspended particles and fibres by filtration through a layer formed on contacting the waste simultaneously with one gas stream moving in countercurrent flow, the rates of feed being 1-5 and 8-24 m./sec., respectively, and a second gas stream moving perpendicularly to the other two, at 8-24 m/sec.

The point of intersection of the 3 streams is subjected to an electrical field of 3-4 volt. at a current density of 20-75 amp./m^2, to exert a flotation effect. Suitable gases are air, hydrogen, oxygen or air mixts., and the second gas stream exerts a tristing moment which increases the efficiency. The method is an improvement on the wire sieve used previously, which readily became clogged.

Selivanov, V.G., Svitelskii, V.P., Ryumin, V.G. et al. Bul. 13/5.4.80. 3.1.77 as 437452 (3pp815)

DNCH= ★ D15 82191 C/46 ★SU -726-030
Purificn. of waste water contg. dyes - by oxidn. with air-ozone mixt. using column without loss of ozone in spent gases
DNEPR CHEM-TECH INS (SHOS=) 17.10.77-SU-531263
E36 (05.04.80) C02c-05/04

Waste water contg. organic dyes is decolourised by contacting with an ozone/air mixt. at 5-40°C. in a foam regime, and the cpds. formed are subsequently neutralised with alkali.

This method max. the use of the ozone and reduces the amt. of apparatus required for trapping ozone in the spent gases.

Typically, waste contg. triaryl methane dye was decolourised in a 30 x 1000 mm. perforated plate column at 20°C. at a rate of addn. of 550 l./hr., with feed of air contg. 15 mg./l., ozone at 510 l./hr. so as to cause foaming on the plates. A 10% soln. of alkali was fed continuously to the 5th. plate to neutralise the acid cpds. formed on ozonisation. The decolourised water was obtained from the base of the column and the spent gases from the top, these contg. no ozone.

Solodovnikov, V.V., Zadorskii, V.M., Shalakhman, Yu.G. et al. Bul. 13/5.4.80. 17.10.77 as 531263 (3pp815)

SHAL= ★ D15 82192 C/46 ★SU -726-031
Removal of organic cpds., e.g. phenol(s) from waste water - by passage through electrical field and oxidn., in presence of activated sludge
SHALE RES INST 28.12.72-SU-541028 (28.12.72-SU-863840)
E14 (05.04.80) C02c-05/10

A high degree of removal of organics from waste is obtd. by subjecting it to a magnetic field of 300-2000 oersted, then oxidising it in presence of activated sludge at a loading of 1-6 mg./l. with saturation of the waste by 1-7 mg./l. oxygen.

The method is suitable for waste having BOD 4000-8000 mg./l., the temp. range is 25-35°C, and the pH range is 5.5-8.5. The use of the magnetic field improves mass exchange, increases adsorption of organic impurities by the sludge, and increases the rate of oxidn.

The residual concn. of phenols is reduced by 27-42%, or the aeration time by 20-30%, corresp. to an increase in purificn. capacity of 43%.

Metsik, R.E., Tomberg, A.I., Khallaste, E.-E.A.
Bul. 13/5.4.80. 28.12.72 as 863840 (4pp815)

SAMB/ ★ D15 82270 C/46 ★SU-726-123
Prodn. of recirculated water supply scaling inhibitor - by reacting in hydrochloric acid formaldehyde, phosphoric acid and reaction prod. of di:chloro ethane and aq. ammonia
SAMBORSKII I V 10.06.77-SU-497834
(07.04.80) C08g-79/04

Salt deposition and scaling inhibitor for use in water supply systems is obtd. by reacting in aq. HCl a mixt. of formaldehyde, o-phosphoric acid and the reactionprod. obtd. by heating dichlorethane and NH_4OH at 110°-135°C. in a mol. ratio 1:2.4-10. The reaction prod. has a compsn. (by wt.%) polyethylene-polyamine dihydrochloride (I) 38-70; NH_3 0.1-1; NH_4Cl 1-6; and water 25-57. The method produces an effective inhibitor with reduced consumption of HCl and NaOH.

Samborskii, I.V., Driker, B.N., Vakulenko, V.A. et al
Bul. 13/5.4.80. 10.6.77 as 497834 (3pp314)

PURA ★ D15 C/46 ★SW 7902-574
Dispersion unit water control - involves current measurement in unit and cleansing plant feeds, corresponding plant feeds, corresponding pump feed speed regulation
PURAC AB 22.03.79-SW-002574
T06 (27.10.80) C02f-01/24

The unit is for the preparation of air and water dispersion, involving compressed air being released into the fed water.

The amount of water provided by the dispersion units can be adjusted proportionally to that passing into a cleansing plant. This adjustment occurs through the two currents being measured. A signal is generated which controls one or more speed-governed pumps which feed water to the dispersion units. The amount of water taken from these units is also adjusted so that a constant level is maintained within them. 22. 3. 79 as 002574 (1pp1161)

TIIC- ★ D15 82386 C/46 ★US 4230-467
Foam removal apparatus uses inclined foam collecting cover - and screen for collapsing foam into liq. collecting trough used e.g. in sewage treatment
TII CORP 18.09.78-US-943304
A88 J01 (28.10.80) B01d-19/02

Foam removal device for a vessel comprises an inclined cover which extends downwardly into the vessel. The upper end of the cover includes a downwardly-extending wall which defines with sidewalls a foam collection zone. An inclined screen, within the cover, collapses the foam and the resultant liq. is collected in a trough located therebelow. Pref. the screen is coated with a polysiloxane to reduce the foam.

The device requires no external energy supply. 18.9.78 as 943304 (5pp1050)

LIYA/ ★ D15 82409 C/46 ★US 4230-529
Thin film promoting distillation appts. - has gp. of tubes driven to wobble about vertical axis which passes through wobbling centre
LI Y T 16.11.78-US-961452
J01 (28.10.80) B01d-03/04

The feed liq. of a distn. appts. flows vertically down a heat exchanger tube mounted in a subframe. The subframe is wobbled to move it in a circular path without rotating the heat exchanger tube.

This action causes the feed liq. to be thrown against the tube walls where it forms a thin film which promotes evapn. Vapour is removed from the tube and is directed to the exterior face of the tube where it condenses. Pref. the appts. includes two subframes of tubes which are wobbled about a common centre to provide a dynamic balance.

The appts. is used as a still to either concentrate liqs. e.g. orange juice, to separate the ingredients of a mixt. e.g. alcohol and water, or as a water desalination plant.

The thin film of liq. promotes evapn., thus reducing energy demands. 16.11.78 as 961452 (8pp295)

LEMO/ ★ D15 82410 C/46 ★US 4230-530
Water distiller with intermittent overflow - connected to bottom of boiler opposite water inlet to prevent solids build up
LEMOINE K D 22.12.78-US-972352
(28.10.80) B01d-03/02

Distn. appts. comprises a boiler with a heater, a vapour chamber and a condenser. An overflow tube is connected to an opening at the bottom of the boiler and extends upwardly from it. A siphon is connected to the overflow tube above the level of the boiler opening. It includes a U-shaped portion extending above its point of connection to the overflow tube but not above the top of the overflow tube. Pref. the boiler also includes an inlet at its bottom.

The appts. is for domestic use and is used to provide drinking water. The appts. is self-cleaning and provides long periods of operation between close down for cleaning.

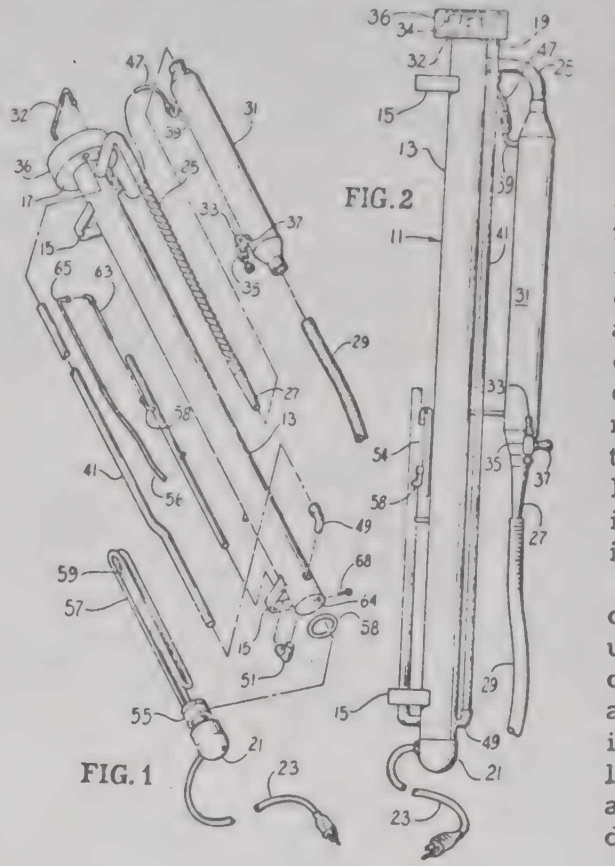


FIG. 1

FIG. 2

22.12.78 as 972352 (7pp295)

SNAM D15 18159 A/10 =US 4230-562
Microbiological purification of water contaminated with mineral oil - by adding a mixt. of a phosphorus source (esp. lecithin) and a nitrogen source in assimilable form BE 1.3.78)
SNAMPROGETTI SPA 08.06.77-IT-024495 (01.09.76-IT-026751)
*H03 (28.10.80) *DT2739-428 C02b-09/02*

Fresh and sea water bodies are depolluted from crude oil petroleum, their prods. and derivs. by spreading cpds. contg. P and slow-release N onto the bodies, in a form which can be assimilated by aquatic hydrocarbon-metabolising mycroorganisms.

Soybean lecithin is used as the P source in amt. ≥ 5 mg per 100 mg. of pollutants, and oxamide as the N source in amt. ≥ 6.5 mg. per 100 mg., such that the natural degradation of the pollutants by the microorganisms is increased. Opt. D-L-5-phenylhydantoin in amt. ≥ 13 mg. per 100 mg. of pollutants may be used as the N source.

Neither depollutant is toxic, and each may be stored indefinitely and be shipped to the place of use. 8.8.77 as 823043 (4pp931)

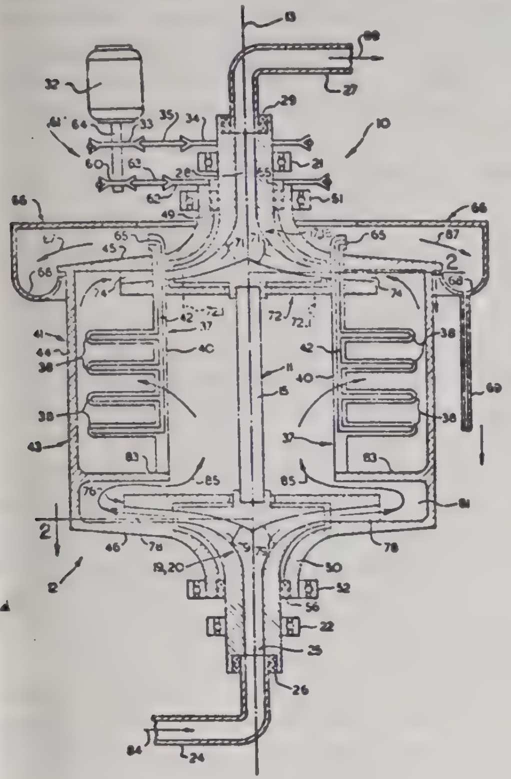
ICIL D15 79402 Y/45 =US 4230-563
Deep shaft biological purificn. of waste water - with circulatory driving force gas tailored to pollution intensity
IMPERIAL CHEM INDS LTD 14.05.76-GB-019980
*(28.10.80) *BE-854-367 C02c-01/02*

Sewage is biologically degradated by circulation through a system consisting of a downcomer and a riser connected at their tops and bottoms. The downcomer has an upper enlarged part of constant cross-section connected by a short length to a lower reduced constant cross-section part. The riser has a lower enlarged part and an upper reduced part connected by a short length.

The combined cross-sections of both upper parts is equal to that of the lower parts. Air and an O_2-contg. gas are injected in the riser and the downcomer to circulate the sewage. The flow velocity in the upper portion of the riser and the lower part of the downcomer is $\nless$ 1m/sec., and $\nless$ 1.2m/sec. respectively. 31.10.78 as 956923 (+ 6.5.77-US-794403) (6pp1376)

KEEF/ ★ D15 82434 C/46 ★US 4230-564
Rotary reverse osmosis system - uses high speed rotor with impeller feed pump and slower speed rotor with semipermeable membranes contg. pressure vessel
KEEFER B G 24.07.78-US-927550 (15.06.77-US-806704)
J01 (28.10.80) B01d-13 B01d-31

Appts. has a slow speed rotor which supports a semipermeable membrane. A high speed rotor pressurises the feed liq. by centrifugal action and throws it against a diffuser attached to the slow speed rotor to convert some of the kinetic energy of the feed into a static pressure.



Spent conc. from the flow speed rotor is discharged as a jet which impinges on a turbine attached to the slow speed rotor to recover energy from the conc. stream Pref. both rotors rotate in the same sense and pref. the diffuser is located radially outwards from the high speed rotor.

The appts. is used to desalinate sea water, purify water, treat liq. waste or dewater food. The appts. recovers energy from the conc. to reduce energy consumption. 24.7.78 as 927550 (22pp)

GESL D15 84285 A/47 =US 4230-565
Purifying phosphate- contg. waste water - by absorption on alumina while blowing in inert gas, e.g. air, nitrogen, carbon di:oxide or oxygen
KERNFORSCHUNGS KARLSRUHE 12.05.77-DT-721298
*(28.10.80) *DT2721-298 C02b-01/14*

Purificn. of a phosphate-contg. waste water in which Al_2O_3 of grain size 0.05-0.2 mm. is used as sorption material comprises bringing the waste water into contact in a stirrer reactor, with stirring, with the Al_2O_3 and simultaneously blowing in a gas inert to both the Al_2O_3 and the phosphate ions, pref. N_2, CO or O_2, esp. air.

Pref. the gas is blown in at a flow rate of 1-101/l of waste water being treated. The process can be both continuous or discontinuous and is safe, and the Al_2O_3 sorption agent is easily desorbed. 11.5.78 as 904991 (4pp954)

FARB D15 81028 B/45 =US 4230-567
Purifying waste waters contg. nitro-hydroxy aromatic cpds. - by heating under pressure without oxygen or air
BAYER AG 27.04.78-DT-818680
*E14 (28.10.80) *DT2818-680 C02c-05*

Effluent contg. nitro- and hydroxy-gp. contg. aromatic cpds. (I) is treated by heating to 150-500°C. with exclusion of air and O_2 and under elevated pressure of 50-150 bars for 5-120 mins. Pref. (I) are in the form of their water-soluble salts. The effluents are heated under an inert gas atmos., esp. N_2 and/or Ar.

Process gives a reduced (I) concn. in the effluent of $<$ 20 ppm. and the resulting material can be fed to a microbiological sewage plant for further working up without killing off the microorganisms due to (I). 6.4.79 as 028029 (4pp982)

METG D15 79418 B/44 =US 4230-569
Appts. for treating cooling water with hypochlorite - has fixed horizontal distribution pipe with depending plastics pipes of different lengths
METALLGESELLSCHAFT AG 17.04.78-DT-816522
*A88 (28.10.80) *EP---4-986 C02b-03/08*

Dissolved chemicals are supplied to a horizontally flowing liq. using a manifold having vertical discharge hoses of different lengths, which open below the liq. surface. The openings are evenly distributed throughout the cross-section of the liq. The hoses are pref. of PTFE, polypropylene or PVC.

Dissolved Cl can be supplied to disinfect cooling water; for use in power stations, etc. 6.4.79 as 028026 (4pp1376)

NATR D15 44408 B/24 =US 4230-570
Liquid aerating device esp. for waste water - in which bubbles are introduced into a diverging annular flow
NATIONAL RES DEV CORP 02.12.77-GB-050312
*(28.10.80) *EP---2-369 B01f-03/04 +C02b-03/08*

Aerator consists of a pressure chamber having an inlet for forced liq. in one direction, a wall opposite the inlet oblique to the inlet direction, a gas inlet between the liq. inlet and wall, and a throat in the line of the wall directed away from the fluid inlet direction. The path between the throat and the liq. inlet is unobstructed. The outlet stream has gas bubbles and is deflected from the inlet direction.

Pref. the outlet is serrated to cause turbulence. 1.12.78 as 965438 (11pp1376)

DADD/ ★ D15 82436 C/46 ★US 4230-571
Domestic water purificn. - by ozone generated by action of UV lamp on air
DADD R C 22.01.79-US-005429
(28.10.80) C02b-03/08

Broad spectrum UV radiation is generated and air is directed in a confined path through the radiation to produce ozone. Ozone-contg. air is then introduced in water which is to be purified, and the mixt. is directed in a helical path around the source of radiation to extend the path length. Path is outside and isolated from the confined air path.

Method is used for domestically purifying water for use as drinking water or on a larger scale for a swimming pool. 22.1.79 as 005429 (7pp295)

BENN/ ★ D15 82441 C/46 ★US 4230-577
Boiler feed water conditioning tank - in which water is heated and chemically treated during tortuous flow through tank
BENNECKE E J 04.05.79-US-036077
(28.10.80) B01d-35

An appts. is used to heat, chemically mix and clean boiler feed water. It consists of a tank having a central outlet in its top. An outer standpipe depends from the top within the tank and includes weir slots midway along its length.

An inner standpipe is concentric with the outer standpipe and depends from the top for a lesser distance than the outer standpipe. Inflow fluid is distributed from a circumferential tube near the bottom of the tank which directs the fluid downwardly. There is a chemical input and heater between the tank and outer standpipe below the level of the weir slots. There is a drain in the bottom of the tank.

The appts. is used to remove mud, iron and other settleable solids from the feed of a boiler. 4.5.79 as 036077(4pp)

JETI- ★ D15 82442 C/46 ★US 4230-578
Sewage collecting sump. with level sensors - controlling discharge pump feeding disposal field nozzles
JET INC 09.04.79-US-028223
(28.10.80) C02c-01

A holding tank accepts the effluent from a sewage septic tank. Level sensors within the holding tank activate a pump which discharges esewage from the holding tank into a disposal field. The pump is activated when an upper level is reached and continues to operate until the level falls to a preset lower level. Opt. an alarm is sounded if the liq. level exceeds a preset value above the level at which the pump should operate.

The pump control circuit includes a silicon controlled rectifier which is activated at the upper level and deactivated at the lower level.

The appts. provides a pumping action to discharge the effluent from the septic tank into a disposal field. Pumped discharge prevents the water logging effect associated with a continuous gravity discharge of a septic tank. 9.4.79 as 028223 (9pp295)

DESA- ★ D15 82443 C/46 ★US 4230-579

Brine flow control for reverse osmosis system - consisting of small diameter ducts sealingly connected to valved hollow body

ESALINATION SYST 10.01.79-US-002353

A88 (28.10.80) B01d-13

A reverse osmosis purificn. system includes a conventional membrane cartridge in a pressure resistant vessel. Permeate is conducted to a container. The system also comprises a proportioning flow control which controls the brine release from the pressure resistant vessel and the pressure of permeate passing through the membrane.

The flow control consists of a small dia. duct formed of two portions, one open end of each portion communicating with a space within a common compartment including a relief val ve connected to the permeate store. The common compartment is separate from the pressure resistant vessel and has the ducts sealingly passing through its walls. Pref. ducts are sealed with epoxy resin adhesive.

The flow control is simple and does not leak. 10.1.79 as 002353 (5pp295)

CHIO/ D15 09298 Y/06 =US 4230-583

Supported anisotropic membrane for reverse osmosis - by impregnating support with water soluble polymer, polyamide soln., salt, and eliminating polymer, salt

CHIOLLE A (CNDR) 30.07.75-IT-025908

*A88 J01 (A23) (28.10.80) *BE-844-637 C08j-05/18 +C08j-03/16*

Mfr. of a supported anisotropic reverse osmosis membrane based on synthetic polyamides, comprises (a) forming a support by treating a suitable material with water-soluble polyacrylic acid of molecular wt. 50000, methyl cellulose of viscosity 4000 cp. a/u at 25°C., a copolymer of acrylamide and acrylic acid, PVP. PVA of molecular wt. 14000 or a copolymer of vinyl pyrrolidone and vinyl acetate, which is resistant to high temps. and insol. to polar solvents used in (b).

Process further comprises (b) forming a soln. of the polyamide in an organic polar solvent, in the presence of a water soluble salt which is also soluble in the solvent, the polyamide concn. being 5-60 wt.% and the wt. ratio of polyamide to salt being 1-10; (c) spreading the polyamide soln. onto the support; (d) partially evapg., the solvent by heating at 40-180°C. for 1 min. to 3 hrs.; (e) coagulating the membrane in an aq. medium to dissolve the polymer and remove it from the support; and (f) thermally treating the obtd. membrane.

Membrane obtd. is resistant to packing resulting from applied pressure and so has long working life. Membrane is esp. used in desalting sea water. 16.10.78 as 951365 (7pp982)

HUBE ★ D15 82451 C/46 ★US 4230-593

Water resistant aluminosilicate water-softening beads - prepd. by pelleting mixt. of aluminosilicate and melted low-density polyethylene

HUBER J M CORP 02.04.79-US-026390 (03.03.78-US-883007)

A97 (A17) (28.10.80) B01j-39/14 C01b-33/28 C02f-01/42 C11d-03/12

Water softening beads are produced by mixing 10-20 pts. low density polyethylene with 80-90 pts. Na aluminosilicate (I) having mole ratios $SiO_2:Al_2O_3$ 2:1-4:1, and $Na_2O:Al_2O_3$ 0.8:1-1.2:1 in a disc pelletiser, heating the mixt. to the softening pt. of the polyethylene and forming beads, cooling the beads and screening them to obtain beads of dia. 200-1,000 μ and Ca capacity ⩾200 mg $CaCO_3$ per g.

The beads are not water dispersible. The prepn. is cheap, and does not involve prodn. of streams contg. organic wastes. 2.4.79 as 026390 (4pp955)

KNHS D15 05572 Y/04 =US 4230-807

Regeneration of weakly basic anion exchanger - using a lime suspension at high flow rate

HOOGOVENS IJMUIDEN BV 09.07.75-DT-530677

*J01 (28.10.80) *BE-843-631 +B01d-15/06*

A weak base anion exchange resin is regenerated by passing 1-5% lime slurry upwardly through the compacted granular mass in an evenly distributed flow of ⩾10 $m^3/h/m^3$ resin, pref. 4% slurry at 20-40 $m^3/h/m^3$, and then displacing the slurry and rinsing the resin with water, flowing upwardly at a similar rate.

The resin is pref. in a vessel having a free space of 30-40% of the space filled with the resin. The connections to distributing systems at top and bottom pref. prevent the passage of granules. Air is pref. introduced together with the rinse water. The method reduces regeneration time. 9.7.76 as 703814 (5pp1358)

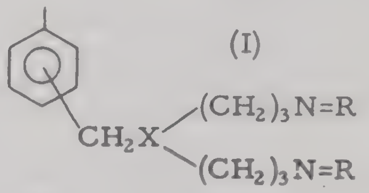
UNII ★ D15 82553 C/46 ★US 4230-828

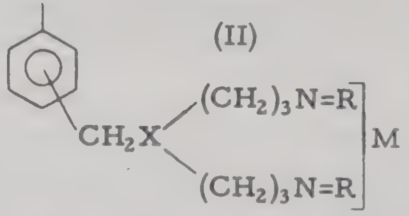
Polymer bound schiff base ligand systems - form metal complexes which are useful heterogeneous oxidn. catalysts

UNIV OF ILLINOIS 11.12.78-US-968123

A97 J04 (A13) (28.10.80) C08f-08/30

Polymer bound multidentate ligand system comprises an insoluble crosslinked polymer support and Schiff base ligands of formula (I). In (I) X is N or P; and R is derived from an aldehyde or ketone.


(I)


(II)

Metal ions may be incorporated with the polymer bound ligand, the complexed ligand having the formula (II). In (II) M is Co(II), Mn(II), Ni(II), Cu(II), Zn(II), Fe(II) or Fe(III).

X is pref. N. Pref. polymer support is cross-linked polystyrene. Pref. aldehyde is salicylaldehyde or 2-pyridine aldehyde and the pref. ketone is acetylacetone or 2,3-butanedione.

Metal complexes are useful as heterogeneous oxidn. catalysts. 11.12.78 as 968123 (5pp1390)

PETL ★ D15 82558 C/46 ★US 4230-839

Polymer of adduct of polymerisable amine salts with acrylonitrile - used in clarifying water contg. oil or suspended solids

PETROLITE CORP 27.10.78-US-955443 (24.11.74-US-523813)

A14 H05 (A91) (28.10.80) C08f-02 C08f-11/04 C08f-220/60 C08f-226

Homo-or copolymer of a quat. NH_4 adduct monomer $R(R_1)_2$ $-\overset{+}{N}CH_2CH_2CNX^-$ (I) is claimed, where R is a polymerisable gp. terminated in $CH_2=CH-$ or $CH_2=C(CH_3)-$ moieties; R_1 gps. are alkyl; X is anion and the quat. N is attached to 4C atoms. Pref. R is alkylmethacryloxy or alkylmethacrylamide, esp. $CH_2=C(CH_3)COOC_2H_4-$ or $CH_2=C(CH_3)CONHC_3H_6-$ and X is chloride or carboxylate gp. Prepn. of the polymers is also claimed parent patent (01692C01) claimed a methacrylate terpolymer and its prepn. using a quat. NH_4 adduct monomer similar to (I) (where CN was replaced by acrylamido gp).

The polymers are used in the clarification of water contg. oil or suspended solids including oilfield, petroleum refinery and metal working processes.

Use of the polymers allows a reduction in the amt. of inorganic coagulants required for water clarification including their complete elimination. Sludge is reduced along with subsequent disposal costs. 27.10.78 as 955443 Div. ex 4179549 (-pp966)

LAGS/ D15 79412 C/45 =WP 8002-235

Extraction of valuable substances from sea water - by directing waves up ramp into filtering chamber periodically backwashed

LAGSTROM E G 18.04.79-SW-003367

*M25 Q42 (30.10.80) *EP--18-340 C02f-01/28 C22b-60/02 E02b-09/08 +B01j-47 C22b-11/04*

D/S: N(AU, BR, DK, JA, NO, SU, US).

Valuable substances such as uranium, gold and silver, are recovered from sea water by allowing the waves to rush up a ramp which leads them into a basin. The water by hydrostatic pressure is caused to flow through one or several layers of filters containing sorbing, ionexchanging or bioactive mass. The water is then directed back to the sea at a lower level than the top of the ramp.

Pref. periodically the sorbing mass is contacted with an elution liquid to extract any collected substance.

The method is used to recover valuable floating, dissolved and suspended substances from sea water.

There is little required energy input and therefore the substances can be extracted economically.
17.4.80 as SW0108.(12pp295).
(E) ISR: FR633998; DT2550751; DT2711587; DT2711609; US653271; US1507461; 1 Journal Reference.

VYRM- ★ D15 82609 C/46 ★WP 8002-281
PPTN. of heavy metals from waste waters - by treatment of sulphate-contg. waters with sulphate reducing bacteria
VYRMETODER AB (HALL/) 24.04.79-SW-003598
M14 (M25) (30.10.80) C02f-03
D/S: N(CH,DK,DT,GB,JA,NL,NO,OE,RU,SU,US).

Heavy metals are pptd. from waste H_2O contg. SO_4^{2-} by treatment with sulphate reducing bacteria (I); the SO_4^{2-} ions present are reduced to H_2S which in turn ppte. the metal ions as metal sulphides.

(I) are cultured in one or more vessels in the presence of a nutrient soln. and a portion of the waste H_2O. The resulting aq. soln. contg. produced H_2S is then introduced into a pptn. zone together with the remaining (major) portion of the waste H_2O.

Inexpensive, economical 2-stage continuous process is suitable for use on an industrial scale, and effectively removes a variety of metals (including high concns. of Pb, Hg, Cd, Fe, Cu, Ni, Zn, Mn, and Ag) from large vols. of waste H_2O.

22.4.80 as SW0121 (11pp478).
(E) ISR: DT2253661; DS2446638; DS2651673; 4 Journal References.

BODE/ ★ D15 82610 C/46 ★WP 8002-282
Treating manure with Lactobacillus strain and carbohydrate - to give bacterial-free prod. useful as cattle feed, landfill and fertiliser
BODENRADER B J 20.04.79-US-031905
C04 (30.10.80) C02f-03/34
D/S: N(DK, JA, SU) + E(GB).

(A) Treatment of manure includes (1) inoculating the manure with a Lactobacillus strain; and (2) mixing it with a carbohydrate (I) to lower the pH of the manure to below 4.5.
(B) Industrial waste with a BOD value of 200-34000 mg/l (based on fermentable carbohydrate present) is treated by inoculating with a Lactobacillus strain and maintaining the waste at pH 3.8-4.2.

The manure becomes evironmentally acceptable, stabilised and free of coliform and pathogenic bacteria. The prod. obtd. has potential food value and fertilising capacity. The protein content is increased so the prod. is esp. useful for ruminant feeds. The (I) may be provided by mixing the manure with industrial wastes, e.g. from breweries, distilleries, farms, poultry and food processing plants. These wastes can be separately treated with a Lactobacillus strain so that they are more suitable for waste disposal. The treated manure may also be used as a landfill.
16.4.80 as US0429 (13pp1248).:
(E) ISR: US4018650; US3546812; US3801499; US3900572; US3961078.

See Also

D13 US 4230451	D16 J8 0040234	D22 J8 0040561

D16: FERMENTATION INDUSTRY

BRAS- ★ D16 80739 C/46 ★BE -884-168
Building precoat of kieselguhr to filter fermented beer -. with uninterrupted flow of purge water, precoat suspension, beer then flush water
BRASSERIES KRONENBO 04.07.79-FR-017928
(03.11.80) B01d C12c C12h
The filtering flow circuit is first purged of air by circulating water for 2 or 3 mins. at a rate of ≥ 1200-1300 hl/h. The water is pref. deaerated and supplied under a pressure of CO_2 at 1.5 Kg/cm^2. Without interruption of flow or change of flow rate, a suspension of pre-agitated kieselguhr is progressively substituted for the circulated water. The first precoat is applied to the elements by pumping through this suspension for about 15 mins.

A second precoat is applied in a further 15 mins. period in which flow conditions are maintained using a second aq. suspension of Kieselguhr of intermediate grain size. Once the filter coats are laid, beer to be filtered is substituted for the flowing second suspension. Filtration then proceeds at 1000 hl/h with metered injection of supplementary kieselguhr. When beer flow is completed it is cleared from the system by flushing water.

High filtration throughput with cycle time reduction of up to 50%. No air pockets in precoats which are homogeneously applied over full area. Min. increase in dissolved oxygen of prod. which is of exceptional brilliance.
4.7.80 as 884168(10pp448)

HVIZ/ ★ D16 C/46 ★CS 7901-177
Flotation appts.
HVIZDAL Z 22.02.79-CS-001177
J01 (31.07.80) C02f-01/40

DADA/ ★ D16 C/46 ★CS 7901-458
Farm animals liquid wastes processing and utilisation
DADAK V 05.03.79-CS-001458
(31.07.80) C02f-11/04

REHA/ ★ D16 C/46 ★CS 7901-606
Industrial mutant of Claviceps purpurea CP 7-274 CCM-623
REHACEK Z 00.00.79-CS-001606
B04 (31.07.80) C12n-15

FABI/ ★ D16 C/46 ★CS 7901-759
Baking yeasts prodn.
FABIAN J 16.03.79-CS-001759
(31.07.80) C12n-01/18

SYKO/ ★ D16 C/46 ★CS 7901-990
Red wines prodn.
SYKORA O 26.03.79-CS-001990
(31.07.80) C12g-01

HRAD/ ★ D16 C/46 ★CS 7902-803
Continuous saccharose immersion
HRADIL J 23.04.79-CS-002803
(D17) (31.07.80) C12p-19/24

PIET/ ★ D16 80842 C/46 ★DL -143-791
Prepn. of sulphited additive for wine - by sulphiting one component and mixing with other components in stages
PIETZ R 21.05.79-DL-213023
(10.09.80) C12g-01/04
Prepn. of an additive for wine is carried out by (a) prepg. the various components of the additive; (b) adding H_2SO_4 to the component with the smallest vol. in an amt. corresp. to the total wt. (W) of SO_2 required in the end prod. (wine + total additive); (c) allowing the mixt. to stand at pref. 15-20°C. for 1-2 hr. and measuring the SO_2 content; (d) adding more H_2SO_4 (to 100%W) if the amt. of SO_2 present is < 80%

W; (e) repeating steps (c) and (d) until the amt. of SO_2 present is 80-100% W; (f) adding the sulphited component to the component with the next largest vol. and repeating steps (c)-(e); and (g) repeating these operations until all the components have been combined. The sulphited mixt. is then added to the wine, which is stored for pref. 5 days, after which the final SO_2 content is determined and adjusted if necessary.

Process gives reproducible results and avoids over-sulphiting. 21.4.79 as 213023 (6pp367)

BOHM/ ★ D16 80843 C/46 ★DL-143-792
Automatic control of environmental factors in water or air - by measuring the difference in effect of standard and test streams on micro-algae cultures in parallel working fermenters
BOHM H 23.05.79-DL-213073
J04 S03 (10.09.80) C12n-01/12 G01n-33/18

An appts. for automatic control of environmental factors using microlagae comprises two (or a multiple of two) parallel connected fermentors in which microalgae are continuously cultivated. Input of nutrient medium and withdrawal of the algae suspension is in equilibrium. Together with the nutrient medium, the fermentors are fed with equal amts. of standard and test waters, or equal amts.of different air streams.

The difference in metabolism between the test organisms in the two fermentors, caused by the qualitative difference in the water or air feeds to the fermentors, is determined in an automatic analyser and documented on a recording chart. When a predetermined threshold value is reached, regeneration of the test culture in the standard water- or air fermentor (or regeneration fermentor connected to this) is induced automatically.

Process allows continuous monitoring of water or air streams for environmentally harmful effects. The appts. is fully automatic and analysis can be conducted automatically for long periods. 23.5.79 as 213073 (10pp513)

SCHM/ ★ D16 80844 C/46 ★DL-143-793
Infectious bursitis vaccine prodn. - from virus suspension from bursa fabricii of infected hens by repeated passage through chick embryo fibroblast cultures
SCHMIDT U 12.03.79-DL-211531
B04 C03 (10.09.80) A61k-39/12 C12n-07

In a new process for the prodn. of a vaccine against infectious bursitis (IB) of hens, an IB virus suspension obtd. from the Bursa fabricii of IB-infected hens is subjected to $CHCl_3$ treatment, conc. by ultracentrifugation, and inoculated onto hen embryo fibroblast cultures. The virus is subjected to 4-6 passages in hen embryo fibroblast cultures, being conc. by ultracentrifugation after each passage. Once a cytopathogenic effect is observed in the 4th, 5th or 6th passage, attenuation of the IB virus is effected by subjecting to a further 10-15 direct passages in hen embryo fibroblast cultures without ultracentrifuge concn. of the virus suspension.

Used in treatment and prophylaxis of infectious bursitis in poultry. Simple and inexpensive process giving a vaccine giving a good immunization effect. 12.3.79 as 211531 (7pp280)

DEAK ★ D16 80845 C/46 ★DL-143-794
Double-stranded C-dNA prodn. from M-RNA reverse transcription prods. - by polymerisation with terminal transferase, hybridisation with a linear plasmid vector, and transfer to recipient cells
AKAD WISSENSCHAFT DDR 01.06.79-DL-213376
B04 C03 (10.09.80) C12n-15

New process is claimed for the isolation of long double-stranded c-DNA molecules from a heterogeneous population obtd. anzymatically from reverse transcription of mRNA, poly(A)$^+$-RNA or rAn-tailed single-stranded RNA. In this process, long polymeric single strands with a mean length of 30-60 nuclectides are polymerised to the double-stranded c-DNA molecule. Subsequently, this material is juxtaposed via the ends with a linear plasmid vector which after the transferase reaction has homopolymeric, complementary single-strands with a mean length of 8-12nucleotides, and transferred into recipient cells.

Simple procedure leading to high yields of long double-stranded c-DNA molecules representing whole genes. 1.6.79 as 213376 (9pp280)

LIMM/ ★ D16 80888 C/46 ★DL-143-922
Low-pour point oils prodn. - by hydrotreating microbiologically dewaxed petroleum distillates
LIMMER H 09.01.78-DL-203135
H04 (17.09.80) C10g-71

Prodn. of oils with a pour point of < -10°C., pref. with an atmospheric boiling range of 300-380°C., is carried out by (a) hydrotreating a microbiologically dewaxed petroleum distillate produced as a by-prod. of single-cell protein prodn., and (b) either partially condensing the hydrotreating effluent and distilling the condensate, or fractionating the total liq. effluent.

Prods. are more useful as base oils (esp. for insulating oils) than the normally produced diesel oils (cf. DL appl. 109023). 9.1.78 as 203135 (8pp367)

HYDR= ★ D16 80889 C/46 ★DL-143-923
Microorganism growth container - with concave bottom for uniform circulation of culture medium throughout
HYDROLYSIS IND 16.03.79-DL-211628
(17.09.80) C12m-01

Appts. for growing microorganisms is a cylindrical container with a concave bottom. Small jecketed cylinders are arranged on the bottom, one in the centre and the remaining twelve in two concentric rings, offset to each other. The concave bottom can be replaced by a conical shape or one resembling an ellipsiod of revolution.

Shape guarantees a uniform circulation of the nutrient medium throughout the entire vol. of the container, the specific capacity is increased for the device, and the risk of injection of the cultivation process is reduced. 16.3.79 as 211628 (11pp39)

DEAK ★ D16 80890 C/46 ★DL-143-925
Enzyme esp. alpha-L-arabino:furanosidase microbiological prodn. - by cultivation of a microorganism esp. Aspergillus Ki on medium contg. pulverised sugar beet slices
AKAD WISSENSCHAFT DDR 20.06.78-DL-206121
B04 (17.09.80) C12n-09/14

In a new process for the prodn. of enzymes (esp.α -L-arabinafuranosidase) by cultivation of microorganisms (esp. Aspergillus niger K_1) at pH 3.5-4.8 and 20-30°C., the cultivation is carried out after the addn. of pulverized sugar beet slices in a medium contg. peptone, KH_2PO_4, NH_4NO_3, $MgSO_4$, $CaCl_2$ and $FeCl_3$.

Prodn. of α-L-arabinofuranosidase, an enzyme used for analytical and enzyme-kinetic studies. Process is not labour intensive, requires minimal amts. of materials and is suitable for large-scale prodn. 20.6.78 as 206121(11pp)

KLIN/ ★ D16 80925 C/46 ★DL-144-047
Composting liq. manure in earth enclosures - contg. waste straw etc. for use as organic fertiliser
KLINGBEIL H 18.05.79-DL-212972
C04 (24.09.80) C05f-03

Method for composting liq. manure comprises stacking up banks of earth and placing organic waste material between them. This is rolled firm, or covered with a thin layer of soil and the front of the heap closed up with earth.

The heap is built to allow entry of tankers carrying liq. manure and about 1000 cum. of this is added per 1000 cu.m. of filling material. After 2-3 months storage of the banks of earth and internal contents are mixed, the material built up into conical stacks, then, after repeated turning, stored for another 2 months. Composting is then complete and the compost is ready for use in plant prodn. as organic fertilizer.

Problems associated with continuous utilisation or storage of liq. manure are avoided, working conditions improved and environmental effects reduced. Compost of consistent quality is prod. 18.5.79 as 212972 (5pp1251)

ORR/ ★ D16 80941 C/46 ★DL-144-074
ungus alpha-amylase fermentation enzyme prepn. - by cultivating ould fungus aspergillus oryzae colour mutant on nutrient medium
BORRIS R 29.05.79-DL-213222
(24.09.80) C12n-09/28

ungus α -amylase, (I), is prepd. by cultivating, in a nutrient medium, an enzyme-generating colour mutant, (A), f mould fungus Aspergillus oryzae, distinguished by an ncreased amylase activity and a conidiospore colour differrent from that of its parent strain, pref. (A) being a cream coloured mould fungus A. oryzae F 15 (= i 911) mutant. he enzyme prod. is sepd. directly from the fermentation iquor.

(I) is used in the fermentation and liquor industry. On dding (I) together with glucoamylase to acid-treated starch, the enzymatic prodn. of grape sugar is increased. Use of (A) can increase α -amylase yield ≥ 5x. The less pigmented (A) form less coloured enzymes. 29.5.79 as 213222 (9pp200)

TAKE D16 06285 S/03 =DS 2034-593
Citric acid from isocitric acid by ferment- - ation
TAKEDA CHEMICAL IND KK 15.07.69-JA-056272
*E17 (06.11.80) *BE-753-506 C07c-59/26 + C12p-07/48*

Citric acid is obtd. by microbiological conversion of (+)-isocitric acid with a yeast of the genus Candida, Brettanomyces. Debaryomyces, Hansenula, Trichosporon, Torulopsis or Pichia. 100 pts. wt. (+)-isocitric acid is contacted with a fermentation broth contg. 10-100 pts. wt. yeast cells (dry wt.) at a pH of 7.0 to 9.5 and the mixt. maintained at 25-45°C.

The citric acid formed is recovered in good yield. 11.7.70 as 034593 (6pp068)

NATR D16 19943 U/15 =DS 2246-695
Enzyme prepns from nocardia microorginisms - for cholesterol determination
NATIONAL RES DEV CORP 19.06.72-GB-028650
*B04 S03 S05 +P31 (06.11.80) *DT2246-695 C12q-01/26 +C12n-09/02*

Process for the prodn. of cholesteroloxidase comprises propagation of suitable strains of ocardia C15 10 554/5 in the presence of glycerol and cholesterol at pH 6-8; the cells are collected and the enzyme is extracted without destruction of the cell tissues by treatment with a non-ionic surfactant, esp. isooctylphenoxypolyethoxyethanol (contg. about 10 moles ethylene oxide units). The aq. extract is sepd. and purified by ion exchange chromatography, esp. on diethylaminoethylcellulose; the soln. is then subjected to ultrafiltration or conc. at reduced pressure, mixed with butter agents and opt. freeze-dried.

Prod. has a specific activity ≥1 int. unit per 5 mg protein N. It is used for cholesterol analysis. The reagent comprises (a) cholesteroloxidase prepn. (≥ 1 int. unit per 50 μg protein N, and ≥ 0.5 int. unit/cm^3); (b) a cpd. which reacts with the H_2O_2 produced to give a prod. that can be determined by colourimetric or fluorimetric methods ;and (c) ≥ acid component for the neutralisation of hydrolysed serum. 22.9.72 as 246695 (8pp047)

HOLS/ D16 02306 A/02 =DS 2627-016
Distilling mash neutralisation - by injecting cold alkaline soln. into not pressurised still
HOLSTEIN A 16.06.76-DT-627016
*(06.11.80) *DT2627-016 C12f-01*

Spent mash from distilling has a pH-value of 4-5 and must be neutralised (a ph-value of 7-8) before it can be discharged into the drainage system. This is done by injecting a cold alkaline solution, which is matched to the quantity and the acidity of the mash, into the closed hot still so that it can react with the mesh. The pump for this purpose is pref. a water jet injector with at least the same drive volume as the entrained alkaline solution.

The chilling shock terminates the distn. at onece and prevents alkaline vapours from contaminating the alcohol vapours. The new method saves labour and time. 16. 6. 76 as 627016 (4pp39)

KRAT D16 29917 B/16 =DS 2744-950
Grape processing system - has vacuum in berry stripper and juice weighing machine to prevent oxidn.
BIZERBA-WERKE KRAUT KG 06.10.77-DT-744950
*(06.11.80) *DT2744-950 C12g-01/02*

A flow line for processing of freshly supplied grapes consists of a berry stripping station where the stalks are removed, a weighing station for the produced grape juice, a collecting tank and a pumping station for storage tanks. A vacuum is maintained in the reception tank preceding the berry stripping station, in the latter itself, in the weighing station and pref. even in the collecting/pumping tank.

This minimises the contact of the grapes with oxygen in the air and saves the addn. of chemical reducing agents to prevent deterioration. 6.10.77 as 744950 (7pp39)

LINM ★ D16 81007 C/46 ★DT 2916-585
Purificn. or sepn. of gases by pressure changes and adsorption - esp. in mfg. organic acids by biological oxidn. of polysaccharide(s) with oxygen
LINDE AG 24.04.79-DT-916585
E17 J01 (06.11.80) B01d-53/04

Process uses a row of switchable adsorbers, where each switching cycle consists of at least one adsorption phase; two expansion phases; one desorption phase; and compression. Desorption is achieved by scrubbing using an extra gas (II) which is then removed during one of the expansion phases of the initial gas mixt. (I).

Process is used esp to separate reaction prods. from O_2 where the latter is one of the constituents in the reaction and is recycled. The O_2 is pref obtd by the decompsn. of air, the N_2 also obtd being used as gas (II).

Optimum use of the adsorber capacity and min. loss of prod. gas (esp in mfg. organic acids by biological oxidn. of polysaccharides with O_2). 24.4.79 as 916585(16pp1144)

ZUBL- ★ D16 81049 C/46 ★DT 2917-048
Covered refuse compositing building - divided into horizontal cells with turnover devices
ZUBLIN E AG 27.04.79-DT-917048
(06.11.80) C05f-09/02

Refuse and/or sewage sludge is converted into compost in a covered building which is subdivided into several floors, each split by longitudinal partitions into cells. At one end, the raw material is charged into the cells by vertical screw conveyors and fresh air is admitted through blowers.

Paddle wheels run along racks on the walls to turn the material over and take it to the chutes at the other end. Exhausters remove the waste air at that end and press it through an earth filter which covers the flat roof of the building.

Such a covered building speeds up the digestion period for the compost and can be a very light structure because of its subdivision into cells. 27.4.79 as 917048 (9pp39)

ZUCK/ ★ D16 81097 C/46 ★DT 2918-212
Opening biological cells to extract contents - using rotating frictional disc to heat cells above pt. of water followed by rapid expansion to burst cell wall under reduced pressure
ZUCKER F J 05.05.79-DT-918212
(06.11.80) A23b-07 A23c-03/03 A23l-03/16 C12m-01 C12n-01/06 C12n-09

Cells in biomasses etc are opened up to either extract the contents or to separate the cell walls from the content. The cells are first heated by passage between two discs, one of which rotates with narrow clearance to a temp above the boiling pt of water,

The cells then eject from edge of the discs past an impringement cutter or baffle into a spare held molar reduced pressure. The sudden pressure drop causes a rapid expansion in the cells causing their walls to burst and their contents to be liberated for subsequent separation or processing.

Used for separation of cell walls and contents e.g. for inactivation and separation of enzymes. The system gives efficient separation with only limited time at dewated temp.

in a simple piece of machinery. Gives reduced thermal damage to the enzymes. 5.5.79 as 918212 (16pp1053)

FARM ★ D16 81122 C/46 ★DT 3012-665

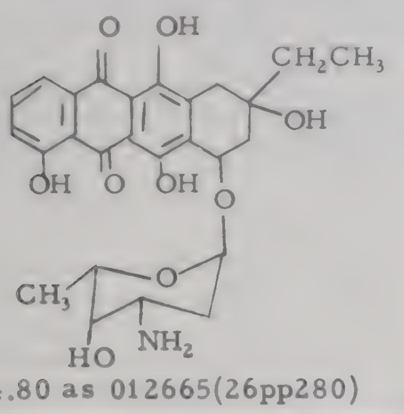
Antitumour and antibacterial anthracycline glycoside antibiotic - esp. 13-deoxy-carminomycin prepd. by aerobic fermentation of Streptomyces peucetius var. carminatus

FARMITAL ERBA C 27.04.79-GB-014765

B03 (06.11.80) A61k-31/35 C07h-15/24 C12p-17/06

New anthracycline glycoside cpds are 13-deoxy-coaminomy-cin (I) and its salts:

(I) in an antitumour agent (e.g. IC_{50} against HeLa cells in vitro 3.2mg/mt, compared with daunorubicin 9.6ng/ml), and also has antibacterial Gram-positive and (Gram-negative bacteria (e.g. MIC is Staph. aueeus 20g is 12.5 mg/ml)



(I)

1.4.80 as 012665(26pp280)

MITN ★ D16 81134 C/46 ★DT 3014-001

Peroxidase enzyme microbiological prodn. - by cultivation of peroxidase-producing Myrothecium strain e.g. M. gramineum

MITSUBISHI GAS CHEM IND 24.01.80-JA-007207 (11.04.79-JA-043864)

B04 S03 (06.11.80) C12n-09/08 C12q-01/28 G01n-33/54

Prodn. comprises (a) cultivation of a microorganism of the genus Myrothecium which can produce psioxidase in a nutrient medium; (b) accumulation of the peroxidase in the cultivated product; and (c/ collection of the accumulated peroxidase.

Peroxidase is used e.g. as a reagent for the quantitative determination of substances such as glucose, alcohol and cholesterol which can act as substrates for oxidases such as glucose oxidase, alcohol oxidase and cholesterol oxidase Peroxidase is also suitable as a labelling enzyme in enzyme immunoassays. 11.4.80 as 014001(27pp280)

KURE D16 70692 Y/40 =GB 1571-075

Antitumour nitrogen contg. polysaccharides prodn. - from Basidiomycetes, by extraction with aq. base then purification by e.g. reverse osmosis

KUREHA KAGAKU KOGYO 07.07.76-JA-080664

*B04 (09.07.80) *BE-852-987 C12p-19/04*

A therapeutically active nitrogen-contg. polysaccharide is isolated by extracting fruit bodies and/or mycelia of a fungus with a 0.01-2.0 N aq. alkaline soln., and refining the extract by ultrafiltration and/or reverse osmosis to remove substances of mol. wt. <5000.

The fungus is of the genus Coriolus, Family Polyporaceae and class Basidomycetes, and is esp. Coriolus vessicolour (Fr.) Quel., C. conchifer (Schw.) Pat., C pargamenus (Fr.) Pat., C. hirsutus (Fr.) Quel., C. biformis (Klotz) Pat., C. consors (Berk.) 1 maz or C. pubescens (Fr.) Quel.

The prod. is active against Sarcoma-180 solid tumours in mice when intra-peritoneally administered, and improves the liver function, stimulates the appetite, remedies intestinal disorders, promotes urination, and is effective in treating leprosy when orally administered. 29.3.77 as 013271 (5pp931).

CRDC D16 26491 Y/15 =GB 1571-196

Hepatis-associated antigen detection - using enzyme-labelled antibodies

CORDIS CORP 29.09.75-US-617746 (29.09.75-US-617743)

*B04 S03 S05 +P31 (09.07.80) *NL7610-801 G01n-33/54 +C07g-07 C12q-01*

The presence of antigens associated with hepatitis is detected in a sample by (a) incubating the sample with an antibody immobilised on an insoluble member, (b) sepg. the insoluble member from the unbonded substance, (c) incubating the insoluble member with a soln. contg. tagged antibody reactive with an antigen associated with hepatitis, (d) sepg. the insoluble member from the enzyme tagged antibody soln. to remove any unbonded tagged antibody, (e) exposing the insoluble member to a substrate soln. which the enzyme of the tagged antibody reacts upon to enable a chemical change in the substrate to produce a detectable reaction prod., and (f) detecting the reaction prod.

In step (a) the antibody is reactive with the antigens associated with hepatitis, the incubation being enabling a bond to be formed between the antibody and an antigen present in the sample. This produces an insoluble member having bonded antigens if antigens are present in the sample. In step (c) the tagged antibody is tagged with an enzyme capable of effecting a reaction of a substrate to produce the detectable reaction prod., the incubation being conducted to enable the tagged antibody to bond to any antigen bonded in step (a) to the antibody on the insoluble member. 29.9.76 as 040376 (19pp924).

CRDC D16 26491 Y/15 =GB 1571-197

Hepatis-associated antigen detection - using enzyme-labelled antibodies

CORDIS CORP 29.09.75-US-617746 (29.09.75-US-617743)

*B04 S03 S05 +P31 (09.07.80) *NL7610-801 C08f-212/04 C08f-259/08 +C08j-05*

Material adapted for use in immuno-assay, comprises a water-insoluble shaped polymeric matrix having a layer of reactive gps. grafted onto its surface, the reactive gps. being capable of covalently bonding to protein. Waffle-like surfaces are provided on the matrix which, when placed in a flat-bottomed vial, will be in contact with any soln. in the vial while minimising the surface-to-surface contact between the matrix and the bottom of the vial.

Pref. an antibody reactive with antigens associated with hepatitis is covalently bonded to the reactive gps. on the matrix. The polymeric matrix may also be used to immobilise antibodies to drugs, e.g. digoxin, opiates and steroids and antibodies to natural prods. e.g. insulin. 29.9.76 as 11699/79 Div. ex 1571196 (5pp924).

CRDC D16 26491 Y/15 =GB 1571-198

Hepatis-associated antigen detection - using enzyme-labelled antibodies

CORDIS CORP 29.09.75-US-617746 (29.09.75-US-617743)

*B04 S03 S05 +P31 (09.07.80) *NL7610-801 G01n-33/54*

Water insol. polymeric member has a layer of polymer chains grafted onto its surface, the chains comprising reactive gps. covalently bonded to hepatitis antibody. Pref. the member comprises PTFE with isothiocyanato-polystyrene gps. grafted onto its surface.

The member is used in determn. of hepatitis antigens. The antibody may be uniformly distributed over the entire surface of the member and is not dislodged by mechanical or chemical forces during use. 29.9.76 as 20659/79. Div. ex 1571196 (2pp945).

SCHI/ D16 33491 A/19 =GB 1579-012

High yield microbiological prodn. of unicellular protein foodstuff - by aerobic yeast fermentation of ethanol in circulating medium

SCHICK J H 10.01.77-DT-700698 (10.01.77-DT-700697)

*(D13) (12.11.80) *BE-862-675 B01f-03/04 B01f-15/06 C12n-01/16 C12r-01/78 +C12m-01/06*

Single-cell protein is microbiologically produced on an ethanol base by cultivating ethanol-fed yeasts at 20-40°C under aerobic conditions in a fermentation column.

The cultivation occurs in the presence of ethanol and O_2 in a dil. nutrient medium of pH 2.5-4, contg. nutrient salts, acid phosphate and an N-contg. substance. The biomass cultivated is sepd. and dried to form a protein prod.

The nutrient medium is kept in constant movement in circulation, and is continuously circulated into, through and out of the column. At each re-entry into the column, the medium is introduced tangentially into a zone which is enriched with O_2 dispersed to 1-7mμ. 9.1.78 as 000678

(8pp931).

EAST D16 18065 A/10 =GB 1579-040

Ascorbic acid determn. e.g. in body fluids - using ascorbic acid oxidase and a coupling component for dehydro:ascorbic acid

EASTMAN KODAK CO 23.08.76-US-716921

_B04 J04 S03 +P31 (S05) (12.11.80) *DT2737-289 +C12n-09/02 C12q-01/26_

Compsn. for the determn. of ascorbate in an aq. liq. comprises ascorbic acid oxidase, a coupling substance (I) which interacts with dehydroascorbic acid to produce a detectable product and a buffer.

Pref. the oxidase is from Curcurbita pepo medullosa and (I) is a o-, m- or p-phenylenediamine. The buffer is pref. capable of buffering an aq. liq. at pH 5.7-8.7(6.8-7.2).

The compsn. may be used in blood serum and is highly selective, very rapid (<5 mins.) and can be carried out at relatively low temps. (<37°C). 23.8.77 as 035333 (7pp393).

PERI/ ★ D16 C/46 ★IT 1046-733

Alcoholic ferments stabilisation

PERI C 28.06.74-IT-024579

_(31.07.80) C12g_

IIZU/ ★ D16 81626 C/46 ★J5 5127-306

Plant virus disease treating agent - contg. cytokinin-type vegetable hormone contained in extract of basidiomycete culture

IIZUKA C 26.03.79-JA-035283

_C03 (02.10.80) A01n-63/04_

Agent contains as active component and cytokinin type vegetable hormone, i.e., zeatine or zeatine riboside, which is contained in the extract of the culture of edible fungi belonging to Basidiomycetes.

Active component is very effective in the treatment of plant virus diseases such as tobacco mosaic virus disease and cucumber mosaic cirus disease. 26.3.79 as 035283. (6pp108)

SANY ★ D16 81670 C/46 ★J5 5127-398

Antibiotic afragilimycin effective against serophillic bacteria - is extracted from streptomyces bacteria, esp. S. neo:hygroscopicus

SANKYO KK 24.03.79-JA-034897

_B04 (02.10.80) A61k-35/74 C07g-11 C12p-01/06 C12r-01/46_

The antibiotic is a yellow-white amorphous powder, and has an elementary analysis: C 58.62, H 7.40, N 3.18%. Determn. of molecular wt. by mass spectroscopy was impossible. H has m.pt. of 190-195°C (decomp.), and a specific rotation, $(\alpha)^{20}_{D}$ of -34.4° (C = 0.12, methanol). Its UV, IR and NMR spectra are specified. It is soluble in $CHCl_3$, ethyl acetate, acetone, MeOH, barely soluble in H_2O, benzene, insoluble in petroleum ether.

Effective against Gram positive and negative bacteria e.g. Staphylococcus aureus, Bacillus subtilus etc. 24.3.79 as 034897 (11pp69)

SEGK ★ D16 81758 C/46 ★J5 5127-988

Peptidase prodn. from Flavobacterium bacteria - by adding ammonium sulphate to intracellular liquor, chromatographing and gel filtering

SEIKAGAKU KK 23.03.79-JA-033191

_B04 (03.10.80) C12n-09/48 C12r-01/20_

Process for producing peptidase comprises (1) dissolving ppte. obtd. by adding ammonium sulphate into intracellular liquor of bacteria body of peptidase-producing bacteria of Flavobacterium genus, (2) subjecting resultant soln. to chromatography by means of cation exchanger to separate out peptidase-contg. fraction and then (3) charging the fraction to hydroxyapatite column and (4) purifying by subjecting the fraction to gel filtration.

Peptidase-producing bacteria of Flavobacterium genus include e.g. Flavobacterium meningosepticum IFO 12535 and Flavobacterium TY-78-74 FERM-P No. 4849, etc. Mycological properties of those bacteria are described in details.

Peptidase is useful for analysis of structure of protein and for decomposing protein or peptide to reduce toxicity or produce useful active substance or chemically modifying decomposed prod. to derive useful active substance. 23.3.79 as 033191. (5pp69)

KYOW ★ D16 81759 C/46 ★J5 5127-989

Benzhydryl:amino gp.-isolating enzyme - produced by Pseudomonas, Favabacterium, Serratia or Xanthomonas microorganism

KYOWA HAKKO KOGYO KK 23.03.79-JA-033361

_(03.10.80) C12n-09/78 C12p-21/06 C12r-01/20_

New benzhydrylamino gp.-isolating enzyme is produced by culturing appropriate Pseudomonas, Flavobacterium, Serratia or Xanthomonas genus microorganisms. Pref. microorganisms are Pseudomonas diminuta, Pseudomonas smaragdina, Pseudomonassschuylkilliensis, Xanthomonas pruni, Flavobacterium flavescans and Serratia maracessens, specifically ATCC 11568, AHU 1479, NRRLB 6, ATCC 15924, ATCC 21045 and ATCC 19180 respectively.

The enzyme can be used to remove a benzhydrulamino gp. protecting the carboxy gp. of a peptide. 23.3.79 as 033361. (5pp69)

MITK ★ D16 81760 C/46 ★J5 5127-992

Tryptophan prepn. from indole and (methyl)-L-cysteine - by reacting in presence of culture medium of Escherichia microorganism

MITSUI TOATSU CHEM INC 23.03.79-JA-033272

_B02 E13 (03.10.80) C12p-13/22 C12r-01/19_

Tryptophan (I) is prepd. by reacting indole (II) with L-cystein (III) or S-methyl-L-cysteine (IV) in the presence of culture medium of a microorganism (V) belonging to Escherchia and having the ability for prodn. of (I)-synthetase (VI) and for prodn. of L-(I) from (II), and (III) or (IV).

The method produces (I) inexpensively, as (II) is industrially synthesised and (III) and (IV) are also produced by several enzymic methods. Examples of (V) are Escherichia coli MT-10231, MT-1232 and MT-10238. The culture medium of (V) is obtd. by incubation of (V) in a usual medium at 20-50°C at neutral pH for 1-5 days. The culture medium of 0.1-10wt.% on the amt. of the reaction mixt. is used, and the reaction is carried out at pH 5-10 and at 10-60°C. 23.3.79 as 033272. (3pp42)

SIYA ★ D16 81761 C/46 ★J5 5127-993

Prodn. of kojic acid useful for preventing sunburn - by incubating microorganism e.g. Acetobacter in medium contg. carbohydrate as carbon source

SANSEI SEIYAKU KK 26.03.79-JA-035809

_E13 (03.10.80) C12p-17/06 C12r-01/66_

Kojic acid (I) is produced by incubation of a microorganism (II) being able to produce (I) in a medium contg. carbohydrate (III) as carbon source, where (III) is supplied into the medium during the incubation.

The method makes it possible to produce (I) in higher yield by the incubation for about 5 days. The amt. of (III) supplied at a time is 4-10% on that used at the start of the incubation. (III) should be supplied twice after 45-55 hrs' and 70-80hrs' incubation. Examples of (II) are those belonging to Aspergillus, Penicillium, Acetobacter, Gluconobacter, etc. Sucrose, glucose, fructose, starch, etc., are used as (III). 26.3.79 as 035809. (5pp42)

MITU ★ D16 81762 C/46 ★J5 5127-995

Prepn. of 3-Beta-23,24-bis:norchol-5-en-22-oic acid - by culturing Rhodoccoccus curallinus mutant strain on sterol substrate

MITSUBISHI CHEM IND KK 26.03.79-JA-035393

_B01 (03.10.80) C12p-33 C12r-01/*_

Prodn. of 3β-hydroxy-23,24-bisnorchola-5-ene-22-oic a acid (HBC) useful as intermediate for the prepn. of corticoid, comprises culturing mutant strain of microorganism belonging to the genus of Rhodococcus using sterol as substrate.

The mutant strain Corallinus MCI-1159 (FERM-P No. 4812), is obtd. by treating the parent strain with N-methyl-N^1-nitro-N-nitrosoguanidine. Sterol used are various sterols pref. cholesterol or β-cytosterol, C-3 esters, or ether derivs.

Carbon source, nitrogen source and inorganic material are added to the medium. Carbon sources are n-paraffin, α-olefin, xylene, methanol, ethanol, glycerine, succinic acid, acetic acid, soy bean oil, cotton seed oil, starch, sugar, grape sugar, etc. Inorganic material used is ammonium sulphate, ammonium nitrate, iron, salt, potassium phosphate, calcium salt, zinc salt, etc.

Nonionic and anionic surfactants as emulsifying agents for sterol, are pref. added to the medium. Cultivation temp. is 20-40°C, pref. 30-35°C, and the pH of the medium is 5-10, pref. 6-9. HBC accumulated in the culture liq. can be sepd. and purified in known manner. 26.3.79 as 035393. (7pp108)

AGEN ★ D16 81764 C/46 ★J5 5127-997

Penta:valent vanadium concn. determn. - by mixing with adenosine tri:phosphate hydrolase and measuring change in activity of enzyme

AGENCY OF IND SCI TECH 28.03.79-JA-036658

E31 J04 (03.10.80) C12q-01/34

The concn. of pentavalent V (I) in a sample (II) is analysed by measuring the change in activity of adenosine triphosphate hydrolase (III), after (II) is mixed with a standard soln. contg. a certain amt. of (III).

Pref. (III) is prepd. from fimbria or flagellum of eucaryote-cell. The standard soln. usually contains 1-100 gamma g./ml. of (III). The activity of (III) is measured by allowing a soln. of (III) to stand at 25-37°C for 5-30 mins., stopping the reaction by addn. of trichloroacetic acid, and measuring the amt. of liberated phosphoric acid by colorimetric analysis such as the Fiske-Subba Row method.

Contents of (I) in (II) of about 0.0001 p.p.m. may be thus analysed simply. 28.3.79 as 036658. (4pp42)

KITA ★ D16 81936 C/46 ★J8 0041-208

Mixed inactivated vaccine for fowl - contg. vaccines for Newcastle disease, bronchitis, coryza and bursal disease

KITASATO RES INST 06.09.73-JA-099720

B04 C03 (22.10.80) A61k-39/17

Mixed inactivated vaccine for fowls, which contains vaccines for Newcastle disease, Infectious bronchitis, Infectious coryza and Infectious Bursal disease. 6.9.73 as 099720, A61k-39/17 (22.10.80) KITASATO RES.INST. (25pp22) (J50052222)

BEHW D16 77904 U/51 =J8 0041-209

Distemper/canine hepatitis vaccine - for intravenous administration

BEHRINGWERKE AG 26.05.72-DT-225548

*B04 (22.10.80) *DT2225-548 A61k-39/17*

Intravenously tolerable vaccines against distemper and canine hepatitis (Hepatitis contagiosa canis) contain attenuated distemper viruses and inactivated Hepatitis contagiosa canis viruses and are free from adjuvants. The vaccines are produced by combining attenuated distemper viruses an inactivated hepatitis viruses, opt. concentrating by ultrafiltration, and filtering cell-free. The vaccines afford immediate protection against both distemper and canine hepatitis, and this immediate protection becomes a lasting active immunity. Hepatitis antibodies can be detected within 3 days of the intravenous administration of the vaccine. Active immunity against distemper is built up at the same time, being unaffected by the processes set in train by the inactivated hepatitis viruses. 26.5.73 as 058263 (clg. 26.5.72-DT-225548) A61k-39/175 (22.10.80) BEHRINGWERKE AG (8pp) (J49041527)

KOKU- D16 31905 C/18 =J8 0040-234

Iron-component removal from water used for brewing - by contacting with water-insol. tannin cpd. obtd. by covalently bonding tannin and water-insol. hydrophilic polymer

KOKUZEICHO-CHOKAN 12.09.78-JA-111331

*A97 (D15) (16.10.80) *J55039-707 C12g-03/02 +A23l-01/23 C02f-01/64*

Iron-components (I) are removed from water by contact of the water with water-insol.tannin-cpd. (II), which consists of water-insol. hydrophilic copolymer (III) and tannin (IV) bonding by covalent bond with each other.

(III) are polymers having ⩾ 1 functional gp. selected from hydroxyl, amino and carboxyl, such as cellulose, agarose, polysaccharides, hydroxy alkylated polysaccharides, etc. Examples of (IV) are tannin, aminoalkylated tannin, carboxylated tannin and hydroxyalkylated tannin.

When water contg. trace of (I) is used for fermentation of Japanese liquor (seishu), colouration of the prod. occurs The decolourisation of this colour is difficult and therefore removal of (I) from raw water and prevention of contamination of (I) into water from corroded points of vessels are necessary. 12.9.78 as 111331, C12g-3/02, A231-1/238, C02f-1/64 (16.10.80) KOKUZEICHO-CHOKAN (6pp42) (J55039707)

KOKU- D16 58814 B/32 =J8 0040-235

Brewing of sake from koji mould - which is prepd. using steamed rice, woody ash and calcium or magnesium ion

KOKUZEI-CHO CHOKAN 03.12.77-JA-144634

*(16.10.80) *J54080-497 C12g-03/02*

The method comprises forming a non-browning variety of 'koji' mould showing strong saccharifying activity from a non-ferriferrichrome-forming variety of 'koji' mould preparing the seed 'koji' using steamed rice combined with woody ash and calcium ion or magnesium ion and brewing 'sake' using thus obtd. seed 'koji' as usual.

The prepn. of the seed 'koji' is pref. effected at 33-36°C under RH 94-98%. It is also desirable to add anhydrous calcium carbonate with woody ash in steamed rice previously and usually anhydrous calcium carbonate is used 0.1-1.0 w/w % on starting rice. 3.12.77 as 144634, C12g-3/02 (16.10.80) KOKUZEI-CHO CHOKAN (3pp) (J54080497)

NAKA- ★ D16 81878 C/46 ★J8 0040-236

Inhibiting pptn. of fermented vinegar - by contacting with e.g. methylcellulose

NAKANO SU-MISE KK (NISS) 07.06.73-JA-063402

(D13) (16.10.80) C12j-01/04

Fermented vinegar contacted with methyl cellulose or kichin. Vinegar is passed through a column packed with methyl cellulose or kichin, and the thus treated vinegar is stored under conventional conditions. 7.6.73 as 063402, C12j-1/04 (16.10.80) NISSHIN FLOUR MILL KK;NAKANO SU-MISE KK (2pp22) (J50013598)

TOYM D16 31895 Y/18 =J8 0040-238

Microbial prodn. of arabinogalactanase - using Bacillus subtilis strains, aerobically cultured in medium contg. arabinogalactan source, e.g. wheat bran, soy bean cake

TOYO SPINNING KK 19.09.75-JA-114078

*(D13 D17) (16.10.80) *J52038-085 +C12n-09/24 C12r-01/25*

For example, wheat bran and 10-200 wt % (on wheat bran) of soy bean cake are mixed and 90-110 wt % (on the mixt.) of water is sprayed onto the mixt. Novel Bacillus subtilis M-31 or M-37 is then inoculated into the mixt. and cultured at a suitable temp. with prescribed amt. of aeration.

This method gives arabinogalactanase having two-fold increase in activity as that obtd. using Bacillus subtilis K-50 which has been considered to produce arabinogalactanase of the highest activity. A remarkable amt. of the arabinogalactanase can be produced.

Arabinogalactam is contained in soy beans and causes poor digestibility of them. Arabinogalactanase can be applied for treating soy beans with the object of decomposing and solubilising polysaccharides (mainly of arabinogalactan). 19.9.75 as 114078 C12n-9/24, C12r-1/125 (16.10.80) TOYO SPINNING KK (5pp5) (J52038085)

FUKA/ D16 13405 W/08 =J8 0040-239

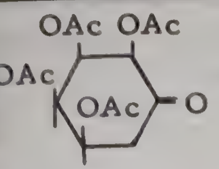
Novel compd. FX-100 - prepd. from Saccharomyces cerevisiae culture medium, useful as fuel additive

FUKAZAWA Y 26.01.73-JA-010321

*E15 (16.10.80) *J49094-893 +C10l-01/10 C12p-01/02 C12r-01/86*

A novel cpd. FX-100 (I), was produced by a Saccharomyces and was useful as combustion fuel additives.

It was neutral, colourless needle-like crystal of formula $C_{14}H_{18}$-O9 and m.p. 83-85° and was sol.in $CHCl_3$, CCl_4, $C_2H_4Cl_2$, slightly sol. in MeOH, EtOH, C_6H_6, and insol.in water. It did not contain N, S, halogen, and ionising element.


(I)

Structural formula of (I) was estm on the bases of UV and IR and NMR absorption spectra.

26.1.73 as 010321, C12p-1/02, C101-1/10, C12r-1/865 (16.10.80) Y FUKAZAWA (6pp) (J49094893)

KYOW D16 53468 S/33 =J8 0040-240

L-methionine microbiological production

KYOWA HAKKO KOGYO KK 06.02.70-JA-010005
*B02 C02 (16.10.80) *DT2105-189 +C12p-13/08*

Microorganism of genus Cornybacterium, with reistance to α-methyl methionine and capable of producing L-methionine is cultured on a nutrient culture medium, and prod. resultant recovered. L-methionine is obtd. in high yield at low cost. Microorganism used is strain of ATCC 21608 derived from Cronybacterium glutamicum ATCC 13032. Culture medium contains C source e.g. gluclose, glycerin, starch, etc. N source e.g. NH_3, NH_4 salt urea, inorganic material e.g. K dihydrogen phosphate, $MgSO_4$. Fermentation is conducted at 20-40°C in neutral pH range under aerobic conditions. 6.2.70 as 010005, C12p-13/08 (16.10.80) KYOWA FERMENTATION KK (2pp22)

KITA D16 11403 V/07 =J8 0040-568

Killed mycoplasma vaccine for protection of domestic animals - against mycoplasmosis diseases

KITASATO RES INST 05.10.72-JA-100028
*B04 C03 (18.10.80) *BE-805-570 A61k-39*

Animals, esp. livestock and poultry, are immunised against respiratory diseases caused by Mycoplasma, by administering a killed Mycoplasma vaccine by spraying or injection into the trachea. The vaccine is produced by cultivating Mycoplasma cells, e.g. M.gallisepticum, M.synoviae, M.suipneumoniae or M.mycoides var.capri, in a suitable medium, killing the cells by heating, chemical agents or by ultrasonics and suspending them in a physiologically acceptable aq. medium at pH 6.0-7.8.

An agent which stabilises the suspension, e.g.gelation, may be added, and the suspension may be homogenised, e.g by ultraonics. 5.10.72 as 100028, A61k-39/00 (18.10.80) KITASATO INST. (6pp) (J49055822)

HITA D16 89168 X/48 =J8 0041-159

Anaerobic processing of biochemical waste - forming low molecular wt. material and volatile acids, then digesting residue forming methane

HITACHI KK 19.05.75-JA-058522
*E17 (E36) (22.10.80) *DT2621-524 +C02f-03/28 C02f-11/04*

Anaerobic working up of biochemical wastes is carried out by initially processing in the presence of acid so that the high molecular wt.organic material is converted into material of lower molecular wt. and the initially low molecular wt. material is converted into volatile organic acids.

From this the non-decomposed sludge is sepd. and digested in a methane former to produce CH_4 and CO_2, the remainder of the material being returned to the first stage Non-decomposed sludge in sepd. from this stage also and pref. a portion of the remaining portion is recirculated to the methane former. 19.5.75 as 058522, C02f-3/28, 11/04 (22.10.80) HITACHI KK (7pp) (J51135172)

TART= ★ D16 81973 C/46 ★SU -724-704

Control of hydrogen sulphide formation in flooded oil structures - by continuous reinjection of unheated recovered calcium chloride type aq. waste

TARTAR PETRO IND 27.03.78-SU-594935
E33 H01 Q49 (02.04.80) E21b-43/22

A method for countering the formation of hydrogen sulphide by the action of sulphate reducing bacteria (SRB) in oil bearing structures undergoing water injection is proposed, whereby calcium chloride-type aq. waste contng. at least 100 g/l. of dissolved solids, recovered from crude dewatering operations, is injected continuously into the structure. Injection is performed continuously to obviate the need for heating to 50°C, as in conventional techniques. Advantages of not heating the injected soln. are savings in energy (approximately 25, 000 kcal/m³ soln.) and equipment costs.

Li, A.D., Tronov, V.P., Volkov, Yu.N. et al. Bul. 12/30.3.80. 27.3.78 as 594935 (2pp1472)

BASH= ★ D16 81974 C/46 ★SU -724-705

Agent for suppressing growth of sulphate-reducing bacteria - comprises polyoxyethylene chloride which can be used in petroleum industry for injection into oil bearing strata

BASHKIR PETRO IND (UFAP) 01.03.78-SU-597029
A97 E16 H01 Q49 (02.04.80) E21b-43/22

Suppression of sulphate reducing bacteria (SRB) which cause the formation of hydrogen sulphide in oil bearing structures undergoing water injection, and in certain other environments of technological importance is achieved by the addition of polyoxyethylene chloride (I) $ClCH_2CH_2O(CH_2CH_2O)_nCH_2CH_2Cl$, (where n = 1-4, to water injected into the structure.

In addition to effectively suppressing SRB, polyoxyethylene chloride has the advantages of being water-soluble, non-toxic and non-flammable and of having a low melting point.

A 5-10% aq. solution of (I) is metered into the injection water either continuously at a ratio of 0.001 to 0.01 wt.% of reagent to water or intermittently at a higher ratio.

Khazipov, R., Kh., Torikov, D.M., Valitov, R.B. et al Bul. 12/30.3.80. 1.3.78 as 597029 (2pp1472)

INSM ★ D16 82264 C/46 ★SU -726-117

Prodn. of carboxyl cationite for purifying protein cpds. - by copolymerising sodium methacryloyl-amino salicylate, hexa:hydro-tri:acryloyl-triazine and hydroxy-propyl-methacrylamide

MACROMOLECULAR CPDS INST (CESK) 26.01.78-SU-597009
A91 B04 J01 (07.04.80) C08f-220/58 C08f-222/38 C08j-05/20

Carboxyl cationite, esp. useful in biochemistry etc. for sepg. and purifying protein materials is obtd. by the radical copolymsn. of a mixt. contg. the Na salt of N-methacryloyl-p-amino-salicylic acid (I); hexahydro-1, 3, 5-triacryloyl-triazine (II); and 2-hydroxy-propyl-methacrylamide (III). The mol. ratio of (III):(I) is 1:0.33-1, and the concn. of (II) in the mixt. is 10-20 mol.%. The polymerisation is carried out in 42-47% aq. n-propanol.

The prod. is obtd. in high yield has a reversible high sorbtion capacity for proteins and enzymes and is resistant to biodegradation.

Kuznedova, N.I., Ezhova, N.M., Dubinina, N.I. et al. Bul. 13/5.4.80. 26.1.78 as 597009 (3pp314)

COUE D16 81224 B/45 =US 4230-031

Testing chamber for bio-hazardous substance falling as droplets - with air curtain preventing escape of droplets

COULTER ELECTRONICS INC 26.04.78-US-900103
*B04 J04 S03 P43 +P35 Q73 Q74 (S05) (28.10.80) *GB2020-008 F23j-11*

For containment of biologically hazardous substances possibly present in sample streams formed into droplets in air in a test chamber, e.g. in a cell sorter or cytofluorometer, the chamber is placed under reduced pressure so that inward air flow at an open face prevents loss of substance.

To prevent the incoming air flow from diverting the sample stream, a stagnant air region is created around the stream by interposing a diverter between the stream and air flow exhaust port at the chamber rear. The diverter diverts the containment air uniformly laterally relative to the sample stream, and is pref. earthed to inhibit build-up of static charge. 26.4.78 as 900103 (6pp1358)

FERN/ ★ D16 82411 C/46 ★US 4230-531

Solar still for brine - with wind turbine powering pumps and preheating brine

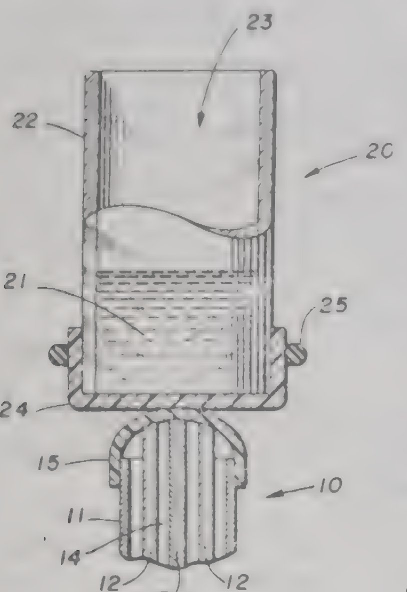
FERNANDOPULLE P D 03.03.77-GB-009028
X25 Q74 (28.10.80) B01d-03 C02b-01/06 F24j-03/02

Brine is evapd. in a solar still and condensed in an associated heat exchanger to yield potable water. Feed brine is preheated in the condensing heat exchanger before feeding to the still and is further heated in the still sump by conc. pumped through a heat exchanger coil. This conc. is stored in a tank and heated by electric energy drawn from a windmill generator. Opt. heated conc. from the heat exchanger coil of the still may be discharged or recycled to the tank.

Appts. evaporates brine by solar energy. Pumps are powered by wind energy which is also used to provide some of the evapn. heat. 22.2.78 as 880125 (7pp295)

MONS ★ D16 82417 C/46 ★US 4230-537
Electrode system for biochemical analysis - with determn. of concn. of dissolved gas in soln. with sensing electrode
MONSANTO CO 18.12.75-US-642205
A96 B04 S03 (28.10.80) G01n-27/46 G01n-31/14

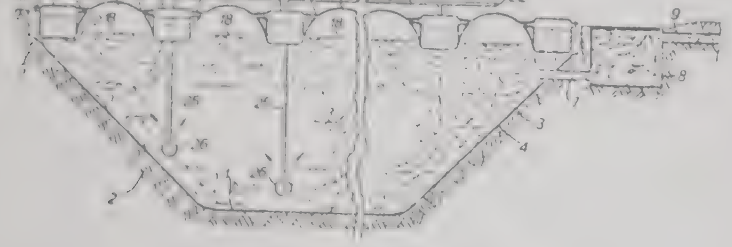
Discrete biochemical analysis is effected by determn. of the concn. of a dissolved gas in soln. with a gas-sensing electrode. This electrode comprises an anode, cathode, electrolytic soln. and a selectively permeable membrane enclosure at one end. The method required causing the gas to diffuse across the mem-brane portion of a sample receptable contg. the test body fluid. The sample receptacle membrane has a dry interface with the electrode membrane at the locus of the gas diffusion, so the liq. sample does not contact any part of the electrode. Also the electrolyte does not contact the sample receptacle.



Cross-contamination in the analysis is avoided, electrolyte does not require renewal between individual sample measurement, very small samples can be used and procedure is esp. useful in automated analysis. 18.12.75 as 642205 (5pp1248)

COMM- ★ D16 82444 C/46 ★US 4230-580
Anaerobic slurry digester with capping - of interlocking elements with ballast tanks and gas release valves
COMMONWORK ENTERP 29.06.77-GB-027295
Q74 (28.10.80) C02c-01/14 F24j-03/02

An anaerobic slurry digester is capped by a set of elongated flanged members. Between pairs of caps are elongate tanks which rest on the cap flanges and serve as ballast when filled with water. The cap rises under gas pressure generated by the slurry. The caps are domed and excess gas is released from the domes.



The cap is of modular construction and can be tailored to fit a range of slurry tanks.

In an embodiment, each cap element (ii) is semi-cylindrical and is terminated by horizontal flanges (13). Elongated water tanks (12) rest on the flanges to bias the cap downwards. Pref. the cap is made of concrete or plastic and sections may be removed to skim the slurry. Pref. the slurry tank has a lining of glass fibre reinforced acrylic-modified polyester resin e.g. 60% ester, 20% methylmethacrylate and 20% styrene. 29.6.78 as 920202 (11pp)

LRSR- ★ D16 82488 C/46 ★US 4230-67
Automatic composting apparatus with forced draught - from vertically adjustable perforated conduits, pref. with analysis o evolved gases
LRS RESEARCH 14.05.79-US-038700
(28.10.80) C05f-11/08

A composter for organic material comprises spaced frame members connected to supports. Hollow, perforated conduits extend between the frame members and are connected to the supports. The conduits are vertically movable along the supports.

Fluid can be injected at one end of the conduits while at the other end an evacuator withdraws fluid from the conduits. Pref. the supports are threaded and are rotatable vertically in the frame members. Nuts connected to the con-duits are threadably connected to the supports.

The appts. creates forced draught composting of organic materials. 14. 5. 79 as 038700 (8pp295)

NOUN D16 71999 C/41 =US 4230-685
Sepn. of cells, bacteria or viruses from mixed populations - by contact with magnetic microspheres coated with staphylococcal protein A and with antibodies
NORTHWESTERN UNIV 28.02.79-US-015895
*S03 (28.10.80) *EP--16-552 +G01n-21/46 G01n-31*

A select population of cells, bacteria or viruses is sepd. from a mixt. by (i) coating microspheres contg. magnetic particles with a layer of antibodies which selectively bind to the select population; (ii) contacting the microspheres with the mixt. to bind the select population; and (iii) magnetically sepg. the bound select population.

Improvement comprises, prior to coating with antibodies, modifying the surface of the microspheres to provide staphylococcal Protein A on the microspheres in adherent relation to the microspheres, contacting with the antibodies which bind to Protein A and the select population so that the antibodies are oriented with their fab arms extending outwardly, and carrying out the rest of the method. 28. 2. 79 as 015895 (6pp982)

AMHP D16 36987 C/21 =US 4230-692
Antibiotic Ravidomycin from Streptomyces ravidus NRRL 11300 - useful as antibacterial and antitumour agent
AYERST MCKENNA & HA 03.11.78-US-957509
*B04 (28.10.80) *EP--10-964 A61k-35*

New ravidomycin (I) (a) is bright yellow crystalline cpd., m. pt. 255°C with decomposition, after recrystallisation from diethyl ether; (b) is soluble in acetone, (m)ethanol, chloroform, and sparingly soluble in diethyl ether; (c) shows a uniform spot on thin layer plates of silica gel; (d) has elemental analysis 65. 73%C, 6. 34%H, 2. 73%N; (e) exhibits absorption maxima in UV spectrum (95% V/V ethanol 286 nm ($E_{1cm}^{1\%}$696) and 246 nm ($E_{1cm}^{1\%}$672); (f) has chara-cteristic 1X spectrum in chloroform; and (g) has characteristic NMR spectrum in deuterochloroform.

(I) is prepd. by aerobically cultivating streptomyces ravidus NREL 11, 300. (I) is used for treating bacterial infections in mammals. 3. 11. 78 as 957509 (8pp936)

MILE ★ D16 82540 C/46 ★US 4230-797
Heterogeneous specific binding assay for ligand determn. - with specific binder coupled to nucleotide coenzyme as label
MILES LABORATORIES INC 10.04.78-US-894838 (28.04.75-US-572008)
B04 (28.10.80) C12q-01/66

Heterogeneous specific binding assay for determn. of a ligand (I) in a liq. medium first involves treating the medium with a reagent including a labelled conjugate comprising a specific binding substance (II) coupled to a nucleotide coenzyme (III). This treatment produces (a) a bound phase of the labelled conjugate in which (II) is bound by a specific binding partner; and (b) a free phase of labelled conjugate in which (II) is not bound by a partner. The two phases are sepd. and the label in either phase is determined to act as a function of (I).

Use of radioactive materials or modified enzymes is avoided, and the assay is versatile and convenient. The labelling substance can be conveniently bound to (I) or specific binding partner. The labelling substance measures the extent to which (III) participates in an enzymatic reaction involving an enzyme requiring (III). (I) include antigens, antibodies, haptens, hormones, vitamins, metabolites, therapeutic agents and their receptors and binding substances. 10. 4. 78 as 894838 (+18. 3. 76-US-667982) (21pp1248)

MILE D16 61704 B/34 =US 4230-798
Test reagent for uric acid determn. - contg. purified animal uricase, chromogen and peroxidase
MILES LABORATORIES INC 13.02.78-US-877500
*B04 J04 S03 +P31 (S05) (28.10.80) *DT2855-433 G01n-31/14*

Test means for the detection of uric acid comprises a uricase-active substance (I), ≥1 chromogen (II) and peroxidase (III). Improvement is that (I) is animal-originated uricase which has been dialysed against a low metal binding constant buffer, has a pH of 6. 8-7. 5, is stable in the pH range and is free from pH sensitive contaminants having a molecular wt. of <6000.

Pref. (II) is a hydrazone, esp. 3-methyl-2-benzothiazolinone hydrazone and the test means contains ≥1 coupling agent.

(I) is stable over a previously unattainable pH range, permitting a unitised test. 13. 2. 78 as 877500 (8pp982)

SCHE ★ D16 82541 C/46 ★US 4230-799
Prepn. of antifungal antibiotic W-10 complex - by cultivation of Aeromonas W-10 NRRL B-11053
SCHERING CORP 19.10.78-US-953050 (09.02.77-US-767102)
*B03 C02 (28.10.80) C12p-19/62 C12r-01/**

Prepn. of antibiotic W-10 complex (I) comprises aerobic cultivation of a suitable Aeromonas sp. W-10 (NRRL B - 11053) and recovering (I) from the nutrient medium. Cultivation is pref. for 48-90, esp. 48-72 hrs., pref. at 28°C, pH 6. 5-7. 0. Pref. antibiotics 20561 (Ia) and 20562 (Ib) are sepd. from (I), e. g. by chromatography.

(Ia) and (Ib) are antifungals for oral, parenteral or pref. topical admin. Parenteral doses are e. g. 1-10 mg/kg/day; oral doses are e. g. 1-5 mg/kg/day; topical compsns. pref. comprise 0. 1-5 wt. %. (Ia) and (Ib) are claimed and characterised in parent patent (11786B/06). 19. 10. 78 as 953050 Div. ex. 4137224 (10pp949)

MITP D16 82126 A/46 =US 4230-800
Polysaccharide prepn. from Pseudomonas polysaccharogenes - useful for reducing blood levels of cholesterol
MITSUBISHI PETROCH KK (MITP) 08.11.77-JA-133104
*B04 (28.10.80) *BE-866-934 C12r-01/38 +C12p-19/04*

Polysaccharides are produced by cultivating Pseudomonas polysaccharogenes M-30 in a medium contg. methanol as the sole or a major C source and then isolating the prod. from the broth.

Pref. cultivation is at pH 6. 5-7. 5 at 28-30°C for 48-72 hrs., solids are removed, crude prod. is pptd. and sepd. with a solvent for pptn. and then purified by deproteinisation.

Prods. are useful as hypocholesterol agents. 29. 6. 78 as 920142 (9pp974)

BIOT- D16 71998 C/41 =US 4230-801
Extracellular microbial lipo-hetero polysaccharide derivs. - prepd. from Acinetobacter sp., useful as emulsifiers for oils and hydrocarbon(s) etc. (J5 29.8.80)
BIOTECHNOLOGIE AG 22.02.79-US-012974
*A11 H01 J01 Q24 Q49 (A97 H03) (28.10.80) *EP--16-546 C12p-19/04*

Extracellular microbial lipopolysaccharides are produced by (a) innoculating an aq. fermentation medium contg. a growth sustaining amt. of ≥1 fatty acid salt with a culture of Acinetobacter Sp. ATCC 31012 or its mutants; (b) aerobically growing the microorganism while adding more fatty acid salt(s) and (c) sepg. the microbial cell mass from the rest of the culture medium.

Stage (b) produces extra-cellular microbial protein-associated lipopolysaccharides (α-emulsans) in which the lipopolysaccharide components (apo-α-emulsans) are N- and O-lipoacylated heteropolysaccharides made up of mainly D-galactosamine and an aminousonic acid. The apo-α-emulsans contain ≥5 wt. % fatty acid esters in which (i) the fatty acids are 10-18C and (ii) ≥50 wt. % of the fatty acids are 2-or3-hydroxydodecanoic acid.

Prods. are strongly anionic and exhibit a high degree of specificity in the emulsification of hydrocarbon substrates contg. both aliphatic and cyclic components. 22. 2. 79 as 012974 (46pp974)

KALI D16 63596 A/36 =US 4230-803
Water-insoluble immobilised enzyme prod. prepn. - by contacting enzyme soln. with carrier having optimum, most frequent pore dia.
KALI-CHEMIE AG 10.06.77-DT-726188
*B04 (28.10.80) *DS2726-188 C07g-07/02*

Water-insoluble enzyme compsns. are prepd. using the lowest possible amount of enzyme to give a certain activity level. The enzyme is covalently bonded to an inorganic support material.

The process comprises (a) selecting a support having the pore dia. which gives the highest absolute energy at any given enzyme concn; (b) selecting an aq. enzyme soln. contg. the concn. of enzyme that gives a relative activity of 100% with the support; (c) contacting them and (d) sepg. the prod. from the remaining soln.

The use of inorganic carriers gives improved properties e. g. mechanical strength and solvent resistance. 31. 5. 78 as 911227 (8pp974)

BEEC D16 46071 W/28 =US 4230-804
Penicillin acylase/methacrylic polymer complex - stable mechanically and biologically, used in prepn. of high yields of 6-APA from penicillins
BEECHAM GROUP LTD 28.12.73-GB-059978
*A14 B02 (28.10.80) *BE-823-782 C07g-07/02*

Novel reusable water-insoluble penicillin acylase complexes comprise penicillin acylase adsorbed on a methacrylic acid - divingl benzene macroporous copolymer cationic exchange resin.

The resin has a substantial proportion of carboxylic acid gps. in free acid or anionic form. The acylase is cross-linked with water-soluble glutaraldehyde, glyoxal or formaldehyde.

Prods. are used in the prodn. of 6-API from penicillin G and V. 27. 10. 78 as 955224 Div. ex. 4001264 (+26. 7. 76-US-709009) (8pp974)

MITB D16 58413 Y/33 #US 4230-806
Single cell protein and fat mfr. by cell cultivation - using medium of vegetable starch liquefied by amylase
MITSUI SHIPBUILDING ENGG 24.12.75-JA-154368 (07.06.77-US-804442)
*(D13) (28.10.80) *J52079-084 +C10n-01/16*

Protein and lipid are produced from carbohydrates by culturing a yeast of the strains candida or rhodotorula in two enzymatic steps.

The process comprises liquefying the carbohydrate with a dextrinogenic enzyme to prepare a culture medium for the yeast and sterilising it; then a septically adding a saccharogenic amylase to the culture medium to effect enzymatic saccharification whilst culturing the yeast. The cultured cells and lipid are then sepd. from the culture medium. Pref. the simultaneous enzymatic saccharification and culture of the yeast is effected using a fermentation unit involving ≥3 serially arranged fermentation tanks.

The microbial protein obtd. by the process is used as a substitute for meat and additive to foods or animal feeds. The process is continuous and uses efficiently a large amt. of starting material in a short period of time. 7. 6. 77 as 804442 (8pp931)

BENA D16 79381 C/45 =WP 8002-229
Purified human Le form interferon proteins - useful as antiviral and ant;cellular agents and for prodn. of antibodies
BENZON A AS 02.04.80-DK-001484 (20.04.79-DK-001645)
*B04 (30.10.80) *EP--18-218 A61k-45/02 C07g-07*
D/S: N(JA, SU).

(A) Human Le form interferon proteins (I) are new when under defined Na dodecylsulphonate polyacrylamide gradient electrophoresis and staining conditions (SDS-PAGE) at a total interferon load of 0.9 x 10^6 IFU, there are 2 major sharp stained protein bands. These have antiviral interferon activity at 18,400 and 20,100 Daltons. There is a minor stained protein band having antiviral interferon activity between 20,300 and 20,400 Daltons, together with smaller peaks of antiviral interferon activity at 19,500, 21,130 and 23,440 Daltons (all values ± 200 Daltons). The gradient does not show other stained protein regions.

The components of (I) free from inactive and undesirable impurities are sepd., and each interferon species has antiviral and anticellular activity, and each major species raises specific antibodies by immunising animals. The monospecific antibodies are useful in the simple and economic purification of large amts. of crude interferon to give a prod. for clinical use, as a standard, for chemical and sequence studies and as an immunogen for repeated prepn. of monospecific anti-interferon.

18.4.80. as DK0024 (70pp1248).
(E) ISR: DT2722970; DT2819297; SW7909721; 11 Journal References.

MINU D16 79375 C/45 =WP 8002-294
Diagnosis of cystic fibrosis and detection of carriers - by assaying for cell mitochondrial activity and comparing with standards
MINNESOTA UNIVERSITY 16.04.79-US-030179
*B04 S03 (S05) (30.10.80) *EP--18-202 C12q-01/32*
D/S: N(AU, BR, CH, DT, DK, GB, JA, LU, MC, NL, NO, OE, RU, SW, SU) + E(CH, DT, FR, GB, LU, NL, OE, SW).

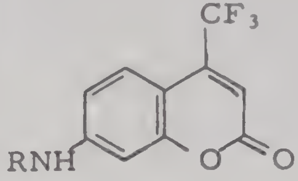
Diagnosis of cystic fibrosis (CF) and detection of non-symptomatic carriers of the disease is effected by (a) homogenising a sample of cells possessing mitochondria from a subject, (b) assaying for the mitochondrial activity of the cells and (c) evaluating the results by comparison with standards established by similar assays on samples from subjects of known condition.

The procedure is simple and inexpensive, and carriers for CF can be diagnosed before birth of an affected child. A simple kit for the test can be provided.

10.4.80. as US0370 (21pp1248).
(E) ISR: US4042462; US4019961; US3867258; US3899298; 4 Journal References.

SMIT/ D16 79329 C/45 =WP 8002-295
Fluorometric or spectrophotometric determn. of enzymes - by hydrolysis of aminoacid deriv. of 7-amino-4 tri:fluoromethylcoumarin to produce chromophore
SMITH R E 23.04.79-US-032444
*B04 (30.10.80) *EP--18-112 C07c-103/52 C12q-01/38 + C07g-07*
D/S: N(DK, JA) + E(CH, DT, FR, GB, LU, NL, SW).

(A) The presence of an enzyme in an enzyme contg. analyte is determined by (a) contacting the analyte with a substrate of formula (I) which can be hydrolysed by the enzyme to liberate 7-amino-4-trifluoromethylcoumarin (II); (b) incubating the analyte- (I) mixt. under enzyme hydrolysing conditions to give an enzyme hydrolysate; and (c) fluorometrically or spectrophotometrically determining the presence of (II) in the hydrolysate.



(I)

(R is an amino acid, a peptide or their derivs.).

(B) Cpds. (I) are new.

The method is esp. useful for the qualitative and quantitative determn. of proteolytic enzymes in biological fluids, e.g. blood tissue homogenates, cytoplasm and urine.

16.4.80. as US0430 (16pp985).
(E) ISR: US4147692; US4155916; US4137225; US4056519; US4167449; US4191809; 4 Journal References.

See Also

D12 DS 2810855
D13 WP 8002225
D15 GB 1579073
D15 J8 0041122

D17: SUGAR; STARCH

GOLD/ ★ D17 C/46 ★BR 7902-362
Sugar cane syrup diffuser-extractor
GOLDSCHMIDT M R 17.04.79-BR-002362
(29.10.80) C13d-01/02

SMEL/ ★ D17 C/46 ★CS 7808-811
Sugar beet washing method
SMELIK A 22.12.78-CS-008811
(31.07.80) A23n-13

MUCH/ ★ D17 C/46 ★CS 7902-918
Crystalline sugar storage
MUCHA F 27.04.79-CS-002918
Q34 (31.07.80) B65d-87 C13f-05

DEAK ★ D17 80892 C/46 ★DL -143-928
Water-soluble carbohydrate prodn. from vegetable matter - by alkali treatment and enzymatic hydrolysis of fibres
AKAD WISSENSCHAFT DDR 18.05.78-DL-205447
(D13) (17.09.80) C13k-13

Prodn. of water-soluble carbohydrates from cellulose- and hemicellulose-contg. vegetable materials is carried out treating with alkali at low temp., recovering the fibres, and hydrolysing with a cellulolytic and hemicellulolytic enzyme complex in solid and/or liq. form, opt. with agitation.

The prods. can be used for single-cell protein mfr. or be further processed for use in the foodstuffs industry. Process is less time- and energy-consuming and less expensive to operate than prior art processes. 18.5.78 as 205447 (8pp367)

ZUCK- ★ D17 80893 C/46 ★DL -143-929
Simultaneous cooling, hydration and granulation of dextrin - by contact with water spray in fluidised bed
VVB ZUCKER & STARKE 18.07.79-DL-214432
(17.09.80) C13l-01/10

Cooling, hydration and granulation are effected simultaneously by continuously feeding hot roast-dried dextrin into a fluidised bed, in which the dextrin is fluidised and contacted with a finely divided water stream so that the temp. of the dextrin particles is rapidly reduced to <60° C. by evaporative cooling.

The fluidised bed is pref. contained in a vessel with a conical lower section and a cylindrical upper section, with a motor-driven air distributor at the bottom and lances for injecting a compressed air/water spray into the fluidised bed, both from above and from the side. The aperture ratio of the injection nozzles is pref. 1:2-5. The prod. is pref. screened to recover the size fraction with the best dissolution properties (0.15-0.75 mm.).

Prodn. and equipment costs and prod. losses are reduced cf. prior art. 18.7.79 as 214432 (15pp367)

DAII D17 30061 S/17 =DS 2051-766
Fatty acid saccharose ester synthesis
DAI-ICHI KOGYO SEIY 23.10.69-JA-085110
*E13 (D13) (06.11.80) *BE-757-846 C07h-13/06*

Saccharose fatty acid esters (I) are prepd. by interestification of saccharose and fatty acid esters. An aq. soln. of saccharose and fatty acid soap is formed with a water content of 10-200 wt.% (based on total amt. of soap and saccharose) and a soap content of 5-40 wt.% (based on total amt. of saccharose and fatty ester).

Fatty acid ester is added to the soln. in an amt. such at the wt. ratio of saccharose to ester is 80:20 to 5:95 nd 0.1-10 wt.% (based on saccharose) of an interesteri-cation catalyst. The mixt. is held at 70-175°C and a pressure of 1013.10^2-80.10^2 Pa or thereunder to dehydrate e mixt. and obtain a homogenous melt. The melt is held 110-175°C opt. after addn. of further fatty acid ester.

Esters (I) are obtd. in good yield useful as emulsifiers. 2.10.70 as 051766 (7pp068)

BOEF D17 62720 U/42 =DS 2214-442

Converting glucose to gluconic acid - over glucose oxidase and atalase on carrier, esp removing glucose from drinks

BOEHRINGER MANNHEIM GMBH 24.03.72-DT-214442

*E17 (06.11.80) *NL7301-275 C07c-59/10 +C12p-07/58*

Glucose is converted to gluconic acid by oxidn. with oxygen in aq. soln. at 10-60°C (25-50°C) and pH 3.5-8 (4.5-7) in the presence of a catalyst of glucose oxidase and catalase. The two enzymes are mixed so that a molecule of one is next to a molecule of the other enzyme and the mixt. is bound to a suitable carrier.

For example a soln. contg. the two enzymes and acrylic monomers may be prepd. and the mixt. polymerised to obtain the supported catalyst mixt.

The presence of catalase in close connection with the oxidase prevents the inhibition of the oxidase and increases catalytic activity. 24.3.72 as 214442 (5pp068)

SALZ D17 23240 V/13 =DS 2245-593

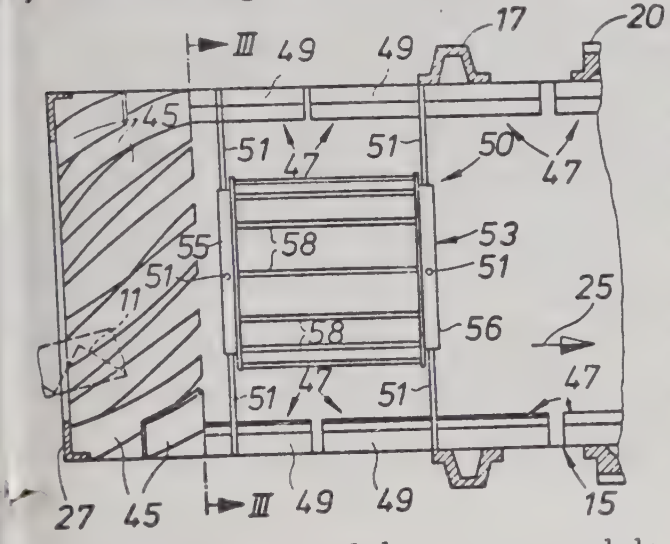
Rotary drum sugar drier - esp. for white sugar with internal vanes and lump breaker

SALZGITTER MASCHINE 16.09.72-DT-245593

*+Q76 (06.11.80) *DT2245-593 C13f-05*

Rotary drying drum for sugar receives the damp sugar by an ascending worm conveyor at one end with a stationary sealed ring through which hot dry air is admitted. The sugar is discharged inside a cage which consists of two rings on spiders, joined by a circle of horizontal bars.

The drum itself has at the inflow end curved guide plates on the inside, followed from the area of the cage on and downstream of it by straight J-shaped plates on the inside. These pick-up the sugar and let it trickle through the hot air stream.



This breaks up all sugar lumps and dries the sugar better and more evenly without grinding it. 16.9.72 as 245593 (5pp39).

OPPE- ★ D17 81016 C/46 ★DT 2916-654

Handling system for sugar beet - having intermediate buffer store with up to one hour's capacity to allowing long term storage to be filled

OPPERMANN & DEICHMA 25.04.79-DT-916654

Q34 Q35 (06.11.80) B65d-90/48 B65g-03/02

Beet store for sugar factories has several storage silos to allow a steady feed of fresh beet to the plant despite unevenness in the supply to the factory. An intermediate silo is beated between the delivery point to the factory and the plant where the beet is processed.

Capacity of this silo corresponds to between ½hr and 1hr of the factory feed requirement. The silo has a spray device to feed off the beet down a channel by flotation. The silo also has a cover to prevent overfilling.

Used on beet sugar factoreis, the arrangement allows steady operation at the factory with fresh beet despite the widely varying delivery rates to the factory during different periods in the day. 25.4.79 as 916654(18pp1053)

ODPR= ★ D17 82289 C/46 ★SU -726-165

Refined sugar bars cutting and packaging unit - has indexable tables carrying packaging device controlling chutes between cutters

ODESS PROV EQUIP 14.04.77-SU-481302

(07.04.80) C13h-07

Efficiency of the machine for cutting and wrapping pressed sugar is improved due to indexed turntables, the first one in the feed line carrying the packaging unit. The cutter of the pressed bars of sugar has a housing and knife blades whose number is smaller by one than the number of pieces cut from the bar.

Each packing device comprises a holder attached to the table for turning chutes carrying the sugar bars while the blades are above and below the chutes. The wrapping units have a housing forming a cell for the cut pieces of sugar while side limiters control flaps during bending. The second table features a pusher for the punch and for the sugar pieces and debris.

Avrutin, A.A., Artarov, V.G., Bekker, A.M. et al. Bul. 13/5.4.80. 14.4.77 as 481302 (15pp89)

ANHE ★ D17 82542 C/46 ★US 4230-802

Enzymatic conversion of glucose to fructose - in presence of starch conversion mud or its extract

ANHEUSER BUSCH INC 05.01.76-US-646629

(28.10.80) C12p-19/24

Enzymatic conversion of glucose to fructose is carried out in the presence of ⩾0.1 wt.% d.s.b. of starch conversion mud or its deriv. contg. fatty acids, fatty acid esters, coagulated protein and hemi-celluloses, and without addn. of Co or Mg salts.

Enzyme stability and activity are improved. Higher levels of Ca in the substrate can be tolerated, and the final syrup does not have to be ion-exchanged to remove Co. 5.1.76 as 646629 (6pp955)

See Also

D15 J8 0041122 D16 CS 7902803 D16 J8 0040238

D18: SKINS; HIDES; LEATHER; TOBACCO

SCHO/ ★ D18 80846 C/46 ★DL -143-795

Prodn. of pigskin with a wrinkled finish - by shrinking after reversible embossing

SCHOPPE K 25.05.79-DL-213145

(10.09.80) C14c-03/28

Prodn. of shrunk pigskin with a wrinkled finish is carried out by converting reversible embossing into wrinkling, pref. by means of the following operations: (1) pretanning, (2) embossing, (3) shrink-tanning, (4) opt. softening, and (5) chrome tanning. 25.5.79 as 213145 (8pp367)

RHOD D18 30279 A/17 =DS 2658-479

Metal oxide mixt. decreasing tobacco smoke toxicity - acts synergetically after prepn. in liquid suspension

RHODIA AG 23.12.76-DT-658479

*E37 P15 (06.11.80) *BE-862-049 A24b-15/28 +A24d-03/16*

An adsorbent additive for tobacco smoke (filters) is produced by adding a large amt. of various highly dispersed metal oxides and/or metal oxide hydrates of Al and/or Ca and/or Mg and/or Si and/or Ti to an intensively agitated low-boiling fluid (mixt.) which does not act as a solvent for any of the oxides and/or hydrates and then removing the fluid (mixt.).

This provides a more uniformly distributed additive which is more effident. 23.12.76 as 658479 (9pp922)

NISB ★ D18 81756 C/46 ★J5 5127-980

Reducing nicotine content in tobacco leaves - by contacting leaves with hydrogen peroxide and then ammonia or ammonium cpd.

JAPAN TOBACCO & SALT PUB 27.03.79-JA-035113

E35 P15 (E36) (03.10.80) A24b-03/18 A24b-15/42

An aq. soln. of H_2O_2 is impregnated into chopped string or laminar of tobacco leaf and then it is contacted with ammonia gas or an aq. soln. of ammonium cpd. is added to it, followed by being dried.

H_2O_2 is decomposed generating O_2 in contact with hydroxide ion in tobacco leaf, and O_2 expands the vol. of tobacco leaf. Nicotin exists in the leaf as cation of organic acid salt, and the cation-exchanging reaction between nicotin and ammonia caused by the contact of the leaf with ammonia liberates nicotin from the leaf. Ammonia remained in the leaf does not damage the taste of cigarette.

Content of nicotin in one cigarette is decreased by decrease of apparent density of the tobacco leaf packed in cigarette and also by decrease of nicotin-content in the leaf. The method is effective for expansion of the apparent vol. of packed leaf and for redn. of nicotin-content in the leaf. 27.3.79 as 035113. (5pp42)

NISB D18 09089 B/05 =J8 0040-231

Tobacco filter mfr. - by spinning polymer fibres of different m. pts. together, forming bundles of the produced complex fibres, then heating to effect bonding

JAPAN TOBACCO & SALT PUB 25.05.77-JA-059851

*A88 F04 P15 (16.10.80) *J53145-999 +A24d-03/08*

Method comprises (1) spinning a first component of fibre-forming polymer with a second component composed of $\geqslant 1$ polymer having lower m.pt. than that of the first component > 10 pref. > 20 esp. > 30°C into a parallel type or double layer type complex fibre so that 50-100% of the cross-section of the complex fibre is the second component, (2) forming a fibre binde from the complex fibre and opt. at least 20 w/w % (sic) of other fibre, and (3) heat-treating the fibre bundle at a temp. between the m.pt. of the first component and that of the second component to stabilise the fibre bundle by self-heat-adhesion.

Tobacco filter has excellent strength and adsorbing activity for harmful ingredients in tobacco smoke, and is at low cost. 25.5.77 as 059851, A24d-3/08 (16.10.80) JAPAN TOBACCO & SALT PUB (10pp5) (J53145999)

SPOR= ★ D18 82290 C/46 ★SU -726-16

Leather skins drafting unit - has plates with variable length slots fo clamps controlled by pneumatic cylinders

SPORT TOURIST OBJEC 04.01.78-SU-562554

(07.04.80) C14b-01/26

Uniform draft of leather skins is achieved with variable lengths of slots for the clamps. The slots at the edges of plates are longer than slots near the centre of plates.

The skin is placed on the frame and clamps at its edge connect it to the plates which are linked to levers. Admi-sion of pressurised air ensures drafting of the skin durin 30 sec. The degree of drafting is mutually perpendicular direction is adjusted by pneumatic cylinders, the rods of which are connected to the plates.

Pushkin, B.P., Drozdov, N.F. Bul. 13/5.4.80. 4.1.78 as 562554 (4pp89)

SIMO/ ★ D18 82343 C/46 ★US 4230-13

Self-extinguishing cigarettes - contain boric acid, benzene:phosphonic acid or its reaction prod. with melamine

SIMON E 09.03.79-US-011129

E11 P15 (28.10.80) A24d-01/10

Self-extinguishing cigarette has a wrapper to which benzene phosphonic acid has been applied. Pref. 2.5-5.5 wt.% of the additive is used. Combination of benzene phosphonic acid and boric acid is pref. used.

Treatment reduces the free burning time of a lit cigarette which is left unattended, reducing the fire risk from accidentally dropped cigarettes. 9.3.79 as 011129 (6pp955)

FARB D18 54767 B/30 =US 4230-81

Pigment preparations for (imitation) leather dressings - contai acrylate copolymers as binders (BE 17.7.79)

BAYER AG 17.01.78-DT-801817

*A82 E37 F08 (28.10.80) *DT2801-817 C09b-67 D06n-03/0 D06p-03/32*

Novel pigment prepns. contain 2-70 wt.% (in)organic pigment dispersed in a soln. of 10-49 wt.% water-insoluble copolymer in an organic solvent.

The copolymer is of 40-60 wt.% ethyl acrylate, 30-50 wt.% methyl methacrylate and 5-15 wt.% hydroxyethyl and or hydroxypropyl (meth)acrylate. It is prepd. at 50-170°C in the presence of 0.5-5.0 wt.% (w.r.t. total monomers) organic per-cpd. or azo cpd. which supplies free radicals and in an organic solvent.

Pref. the solvent is cyclohexanane, DMF or ethyl glyc Pref. the polymer has a softening pt. of -5 to + 25°C.

Compsns. are used for dressing (imitation) leather. 15.1.79 as 003582 (4pp974)

See Also

D12 US 4229860

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

COLG ★ D21 80741 C/46 ★BE -884-181

High viscosity dentifrice compsn. contains anionic polyelectrolyte - surface treated by polyvalent cation, as gelling agent

COLGATE PALMOLIVE CO 25.03.80-US-133706 (05.07.79-US-054779)

A96 (03.11.80) A61k

The water-absorbing anionic polyelectrolyte is a polymer the surface of which is treated by at least one polyvalent cation and has a particle size of $\geqslant 90\%$ below 500 micrometers with about 99% being $\geqslant 2\ \mu$.

The pref. polyelectrolyte is a polyacrylate and the cation is pref. Al. The amt. used is pref. 0.5-20%, esp. 0.5-3%. The pref. particle size in micrometers is pref. 149 0.0716%, 149-74 0.329%, 74-44 1.25% and $\leqslant 44$ 98.35 % with ave. size about 30. Other pref. ingredients are another humectant (2-10%), esp. glycerol; a polishing agent and a fluorine cpd. so as to contain 0.01-1% F, es Na monofluorophosphate.

The polymer enables high viscosity compsns. and als gives moistening properties to the compsn. 4.7.80 as 884181(21pp597)

LIED/ ★ D21 80775 C/46 ★DL -143-5

Maddrell's salts prepd. with low water solubles content - by heat mono:sodium mono:phosphate soln. contg. conc. nitric acid catalyst

LIEDLOFF B 05.04.79-DL-212025

E34 (03.09.80) C01b-25/44

Process comprises thermal treatment of monosodiumm nophosphate in the presence of conc. HNO_3 as catalyst. In a pref. process, monosodiummonophosphate soln. contg. 35-40 wt.% P_2O_5 is mixed with 0.05-0.6 wt.% (w.r.t. soln.) conc. HNO_3 and the mixt. is heated to 150-240°C., pref. 160-200°C. within 10-120 mins., esp. 20-80 mins. to form disodiumdiphosphate or a mixt. of this and monosodiummonophosphate. The prod. is then calcined by heating to 250-420°C., esp. 300-380°C. within 20-120 mins., esp. 30-90 mins., to form the Maddrell salts.

The formation of Na trimetaphosphate is suppressed to give a prod. contg. $<$ 2 wt.% water-soluble material. The prods. are useful cleaning agents in toothpaste. 5.4.79 as 212025 (8pp513)

KONE/ ★ D21 80823 C/46 ★DL-143-757
Modified maddrell salts - by heating mono:sodium mono:phosphate or di:sodium di:phosphate with additive such as calcium carbonate, aluminium (hydr)oxide, etc.
KONERDING K 10.05.79-DL-212772
E34 (10.09.80) C01b-25/44

Modified Maddell salts mixt. is made by mixing a phosphate raw material (I) comprising monosodiummonophosphate and/or disodiumdiphosphate with an additive (II) comprising $CaCO_3$ and/or Al_2O_3 and)or $Al(OH)_3$ and/or Mg ammonium phosphate and/or TiO_2 in a wt. ratio monosodiummonophosphate:(II) = 1:(0.3-3.0). The mixt. is then heated at a rate of $>$ 50°C/min. to a temp. of 330-420°C. and opt. held at this temp. for 5-15 mins.

Modified prod. has a Na trimetaphosphate content of $\leqslant$ 1 wt.% and is a homogeneous solid mixt. which is esp. useful as an additive to improve the cleaning effect of toothpaste. 10.5.79 as 212772 (7pp513)

PIER/ D21 21083 V/12 =DS 2355-074
Mask-forming skin prepn - based on calcium sulphate which sets hard exothermally, to re-model double-chins, remove wrinkles, etc
PIERRET C J 06.11.72-FR-039149
*(06.11.80) *BE-806-938 A61k-07/48*

A cosmetic skin treatment comprises first applying a treatment material to the skin and then applying a treatment mask, which is allowed to harden. The mask is applied as a pasty mass of gypsum, an accelerator to aid hardening and water. The compsn. of the mask is such that in setting and hardening the temp. of the mask on the inside next to the skin reaches 40-45°C.

A pref. compsn. is $CaSO_4.\frac{1}{2}H_2O$ 92.7 pts. wt. talc 5 pts. wt. ZnO 2 pts. wt. Mg stearate 0.3 pts. wt. K_2SO_4 1 pt. wt NaCl 1.6 pts. wt and sufficient H_2O to form a paste.

The heat generated by the mask stimulates the skin and aids absorbtion of the treatment material. 3.11.73 as 355074 (3pp068)

FRIE- D21 32984 Y/19 =DS 2549-114
Ceramic dental implant - has cylindrical threaded portion at one end, a tapering centre portion, and a spherical partly tapering member at the other end
FRIEDRICHSFELD GMBH 03.11.75-DT-549114
*P32 (06.11.80) *DT2549-114 A61c-08*

A dental implant of an alumina-based ceramic for supporting a superstructure has a rounded apex, a cylindrical shaft provided with an internal thread to support the superstructure. Between the cylindrical part and the rounded end is a tapering section having two annular surfaces normal to the former's apex.

The implant is more physiologically compatible (i.e. it allows the growth of collegen fibres) if the rounded end has a smooth and unbroken surface. 3.11.75 as 549114 (4pp922)

DARX D21 29226 C/17 =DS 2853-647
Mfg. silica gel used partic. in tooth paste - as cleaning and polishing agent, giving good dental abrasion
GRACE GMBH 13.12.78-DT-853647
*E36 (06.11.80) *BE-880-583 A61k-07/16 C01b-33/15 C09g-01/02 C11d-03/12*

A silica gel (esp. for cleaning/polishing/abrading in tooth core formulations) has (a) a specific surface of 1-600 m^2/g, (b) a specific pore vol. of 0.05-0.5 cm^3/g, (c) a prod. of (a) and (b) of $\leqslant$ 240 (200), (d) a statistical pore diam. of 1.5-2.5 nm, (e) a water content of $<$ 25 wt.% and (f) an average particle size of 1-30 µm.

It is produced by gelling aqs. silicate solns., semi-cont. washing the hydrogel at pH $<$ 6 and at 0-70°C to a purity of 90-99 wt.% and immediately drying to a water content of $<$ 25 wt.%. It is then ground to the particle size required.

The prod. has improved abrasiveness. 13.12.78 as 853647 (7pp922)

PETE/ ★ D21 81182 C/46 ★DT 3015-529
Strengthening dental prosthesis enamel contg. light alkali oxide - by immersion in fused salt bath to cause alkali ion exchange
PETER P 24.04.79-FR-011204
L02 M13 P32 (06.11.80) A61c-05/08 A61c-13/08 A61k-06/02 C03c-21 C23d-13

Dental porcelain is mechanically strengthened by immersing enamelled dental prostheses in a fused salt bath at $\geqslant$ 200°C up to enamel transition temp., T_g, so as to cause the exchange of enamel surface alkali ions for the larger alkali ions in the fused salt.

The process can be used for strengthening jacket crowns powdered metal crowns or bridges, faceted prostheses with Pt clips and porcelain teeth with clips.

The compressive forces generated cause an increase in enamel breaking strength and surface hardness, without core embrittlement, discolouration or deformation E.g the breaking strength of enamel contg. 10 wt% Na_2O was doubled after 5 min immersion in a KNO_3 melt at 480°C. 23.4.80 as 015529(13pp200)

ERAP D21 75942 Y/43 =GB 1578-977
Antiseborrhoeic hydrocarbylthio-ethylamine salts - with amino-diacids, e.g. aspartic or glutamic acid
SOC NAT ELF AQUITAI 18.06.76-FR-018516
*B05 C03 (12.11.80) *BE-855-794 A61k-31/20 C07c-101/20 C07c-149/24*

Salts of an aliphatic thioethylamine of formula $R.S.CH_2CH_2.NH_2$ (I) are new. In (I), R is opt. satd. 1-20C aliphatic gp. opt. carrying $\geqslant$1 functional substit. The amine function is combined with one of the two carboxylic acid functions of an amino-diacid of formula $HOOC.(CH_2)_n.CH(NH_2).COOH$ (where n is 0-17).

Specific salts are e.g. glutamate of an alkyl-thioethylamine and aspartate of an alkyl-thioethylamine. The salts are used to treat skin and/or hair to combat seborrheic disease or to treat burns or damage due to radiation. 17.6.77 as 025546 (6pp982).

GYOG ★ D21 C/46 ★HU T018-951
1,6-Bis-(5-(4-chlorophenyl)-biguanido)-hexane disaccharinate - useful as dental, mouth and throat disinfecting
GYOGYSZERKUTATO INT 26.09.78-HU-GO1420
B02 (28.10.80) C07c-129/16 C07d-275/06

TSUK/ ★ D21 81401 C/46 ★J5 5125-807
Cosmetic abrasive for polishing nails - comprising ethanol, and glycerine and/or propylene glycol and stearic acid and diatomaceous earth
TSUKAMOTO M 23.03.79-JA-033296
E17 P24 (29.09.80) A45d-29/11

An abrasive for polishing nail, used for cosmetic purpose, consists of 30-94wt.% ethanol, 2-30wt.% glycerine, propylene glycol, or a mixt. of 1-15wt.% glycerine and 1-15wt.% propylene glycol, 1-10wt. stearic acid, and 3-30wt.% of a high quality diatomaceous earth.

The abrasive for polishing nail has excellent permeability into buffed portion of nail and quick dryness and enables the polishing of the abrasive-coated portion immediately after coating, exhibiting a polishing effect as much as 2-3 times greater than the conventional nail polisher for nail.

For example, the pref. amt. of ethanol is 61-89wt.%, and also the pref. amt. of glycerine is 2-7wt.%. For propylene glycol, however, the pref. amt. is 3-10wt.%. Also, where a mixt. of glycerine and propylene glycol is used, the total amt. of them should be $\leqslant$ 30wt.%. 23.3.79 as 033296. (3pp117)

LOIR ★ D21 81607 C/46 ★J5 5127-132

Emulsifier-compsn. used in cosmetic mfr. - comprises basic aminoacid salt of fatty acid and poly:alcohol fatty acid ester, also may contain antiseptics humidifying agent etc.

LOIRE KESHOHIN KK 24.03.79-JA-034962

E16 (E17) (01.10.80) A61k-07 A61k-09/06 B01f-17

Emulsifier-compsn. (I) contains basic amino acid salt (II) of fatty acid (III) prepd. by reacting a basic amino acid, e.g. lysine, arginine, oxylysine, etc., opd opt. branched opt. satd. (III), e.g. lauric, myristic, palmitic or stearic acids, etc. (I) also contains a polyalcohol fatty acter (IV) which is mono-, di-, tri- or poly-ester of polyol, e.g. glycerol, polyglycerol, pentaerythritol, sorbitan, sucrose etc., and an opt. branched satd. or unsatd. fatty acid e.g. caprylic, capric, lauric acid, linoleic or linolic acids, etc. The wt. ratio of (II) to (IV) in (I) is 20-1:1-20 (pref. 10-1:1-10).

(I) does not stimulate the skin and is used for cosmetic mfr. An emulsion prepd. using (I) is stable and has good appearance. Other ingredients e.g. antiseptics, humidifying agent, thickening agent, UV absorbing agent, pigment, perfume, etc. are mixed in (I), for prepg. the cosmetics e.g. vanishing cream, etc. 24.3.79 as 034962. (6pp42)

LOIR- ★ D21 81608 C/46 ★J5 5127-133

Emulsifier compsn. for cosmetic use - contg. basic aminoacid salt of fatty acid, alpha, beta-hydroxy diol and additives e.g. pigment, perfume, antiseptic, UV absorber, thickener

LOIRE KESHOHIN KK 24.03.79-JA-034963

E16 (E17) (01.10.80) A61k-07 A61k-09/06 B01f-17

Compsn. (I) contains basic amino acid salt (II) of fatty acid (III) and diol (IV) having OH at alpha- and beta-positions as essential components. (II) is prepd. by reaction of basic amino acid, e.g. rysine, arginine, oxyrysine, etc., and opt. branched (un)satd. (III), e.g. lauric acid, myristic acid, palmitic acid, etc. Examples of (IV) are 10-40C 1,2-long chain alkane diol and glycerine monoalkyl ether having 8-40C alkyl. Wt. ratio of (II) to (IV) in (I) is 20/1-1/20, e.g. (10/1-1/10). Other inreedients such as antiseptics, humidifying agent, thickening agent, UV absorbing agent, pigment, perfume, etc. are mixed in (I), for prepn. of cosmetics such as vanishing cream, make-up cream, milk lotion, etc.

(I) is not stimulative to skin and is used for cosmetics Emulsion prepd. using (I) is stable and has good appearance. 24.3.79 as 034963. (6pp42)

LIOY ★ D21 81627 C/46 ★J5 5127-308

Weakly acidic emulsified cosmetic - comprises oily cosmetic, cellulose or starch contg. cationic nitrogen, tri:ethanolamine or tri:isopropanol:amine fatty acid and water

LION FAT & OIL KK 23.03.79-JA-033899

A96 (02.10.80) A61k-07

Weakly acidic emulsified cosmetic is composed of (a) 10-50wt.% of oily cosmetic material, (b) 0.5-3wt.% cationised cellulose having the cationic N content 0.5-3wt.% or cationised starch having cationic N content 0.5-5wt.%, (c) triethanolamine or tri-isopropanolamine, (d) higher fetty acid having 16-22C alkyl and (e) water and has a molar ratio of (d)/(c) of $\geqslant$2 and that of (c)/(b) of 0.2-1.0.

Though skin is weakly acidic, conventional emulsified cosmetics have been weakly alkaline. The inventor has found that by adjusting the proportion of higher fatty acid and triethanolamine in the emulsion contg. cationised polymer, weakly acidic emulsion can be obtd. Further the emulsion is stable and can be used as the base for cream lotion, lotion, etc.

Cationised cellulose can be prepd. by cationising the hydroxyethylcellulose having a polymerisation degree of glucose 100-20000 and the molar addn. number of ethyleneoxide on a glucose unit 1-3, with nitrogen cpd. Usually the correlation is observed between pH of the emulsion and the molar proportion of (d)/(c) and with increasing (d)/(c) pH of the emulsion falls. 23.3.79 as 033899. (6pp5)

KISH- ★ D21 81628 C/46 ★J5 5127-309

Cosmetic contg. Scutellariae Radix aq. extract contg. flavone derivs. - prevents skin chapping, sunburn and inflammation

KISHOHIN KAGAKU KAI 23.03.79-JA-034771

B04 (B02) (02.10.80) A61k-07

The S. radix extract can be prepd. either by extracting fine slices or powder of S. Radix with water or by adding acid to the aq. soln. of S. Radix and recovering the yellow ppte. Extract contains flavone derivs. e.g. wagonin, vicalin, vicalen, etc. as the effective ingredients. Cosmetic can be used in the form of pack, face lotion, cream, milk lotion, cleanser, soap, etc. and usually the extract is combined 1 w/w% in these cosmetics.

The S. Radix extract has strong UV absorption of wide wavelength range and cosmetics contg. S. Radix extract prevent chapping of skin, sunburn and skin inflammation. 23.3.79 as 034771. (3pp5)

KISH- ★ D21 81629 C/46 ★J5 5127-310

Emulsified skin cosmetic prepn. - by combining colloidal suspension of aluminium hydroxide-sucrose fatty acid ester with cosmetic material, gelling and emulsifying

KISHOHIN KAGAKU KAI 23.03.79-JA-034772

E12 (02.10.80) A61k-07 B01f-17

Method comprises combining colloidal suspension obtd. by bonding Al hydroxide and sucrose fatty acid ester in solvent, in cosmetic material, gelling the mixt. and emulsifying it.

Sucrose fatty acid ester is pref. prepd. from 16-18C satd. fatty acid and sucrose and comprises 50-80% monoester and remaining % diester. Sucrose fatty acid ester ndd Al hydroxide are added to aq. dihydric alcohol soln. of pH 5.0 and temp. 80°C. Complex is bonded through hydrogen bonds and co-ordinate bonds.

Aluminium hydroxide-sucrose fatty acid ester complex has excellent emulsifying properties and excellent emulsified skin cosmetic is prepd. with decreased amt. of surfactant. Though emulsified granules are often aggregated with Al hydroxide, with the complex emulsified granules are further dispersed. Skin disorder caused from the use of large amt. of surfactant is avoided. 23.3.79 as 034772. (4pp5)

KISH- ★ D21 81630 C/46 ★J5 5127-311

Rapid film forming face pack with good skin hydrating properties - comprises lactate or chloride of divalent metal in aq. PVA soln. and borax in aq. soln. of arginic acid salt

KISHOHIN KAGAKU KAI 23.03.79-JA-034773

A96 (02.10.80) A61k-07

Cosmetic consists of a cpd. (I) prepd. by combining lactate or chloride of a divalent metal in PVA soln. and a cpd. (II) prepd. by combining borax in an aq. soln. of sodium, potassium or triethanolamine salt of arginic acid. The face-pack film is formed by using them together.

The PVA soln. in (I) is gelled with the borax in (II). Simultaneously the arginate soln. in (II) is gelled with the lactate or the chloride of divalent metal in (I). Thus formed film not only can be detached easily from skin with fingers, but also has good hydrating properties, supplying water to the horny layer of the skin.

By this method good face-pack film can be formed rapidly independent of the PVA concn. 23.3.79 as 034773. (3pp5)

KISH- ★ D21 81631 C/46 ★J5 5127-312

Skin cosmetic pack - comprises sol prepd. by combining gelled water soluble high molecular substance in PVA, and compsn. contg. lactate or chloride in PVA

KISHOHIN KAGAKU KAI 23.03.79-JA-034774

A96 (02.10.80) A61k-07

The cosmetic pack consists of (a) compsn. comprising soln. prepd. by combining water soluble high molecular substance (e.g. sodium arginate, potassium arginate, sodium polyacrylate, pectin, etc.) which is gelled with lactate or chloride of divalent metal, in polyvinylalcohol, (2) compsn. prepd. by combining lactate or chloride of divalent metal in PVA.

The second compsn. is slowly gelled and after a short time gelled film which can be easily detached, can be formed. Pack film is quickly formed and excellent beautifying effect can be realised before detaching the formed film. 23.3.79 as 034774. (3pp5)

KISH- ★ D21 81632 C/46 ★J5 5127-313

Skin cosmetic pack - obtd. by combining granules of water insol. high molecular cpd. contg. adhered inorganic pigment with aq. soln. of high molecular cpd.

KISHOHIN KAGAKU KAI 23.03.79-JA-034775

A96 (02.10.80) A61k-07

Cosmetic pack is prepd. by combining granules of the water insoluble high molecular cpd., on which at least one kind of inorganic pigment is adhered, with aq. soln. of water-soluble high molecular substance. The pack removes only skin washes effectively.

As water insoluble high molecular cpd. polyamide, nylon 12, polystyrene, polyethylene, teflon, etc. can be used and as inorganic pigment TiO_2, $CaCO_3$, talc, clay, kaolin, graphite, C black, alumina, etc. can be used. 23.3.79 as 034775. (3pp5)

SANN ★ D21 81728 C/46 ★J5 5127-496

Improving odour of cationic surfactant compsns. - by using lower alkyl halide

SANYO CHEM IND LTD 23.03.79-JA-034697

E14 (E16) (02.10.80) C11d-01/62

Characteristic odour of cationic surfactant compsn. esp. a benzalkonium salt type cationic surfactant used as a base for a hair rinsing agent is improved by using a lower alkyl halide, e.g. (m)ethyl chloride, (m)ethyl bromide, (m)ethyl iodide, etc., in the treatment of benzalkonium salt type cationic surfactant-contg. compsn. at 40-90°C in a proportion of 0.05-30 mole-% based on wt. benzalkonium salt type cationic surfactant present in the compsn.

Odourless compsn. is used as a base for rinsing agent for cosmetic purposes. The need for large amts. of masking flavours is obviated and cosmetics having a greatly improved and highly stable favourable odour can be easily mfd. 23.3.79 as 034697. (5pp117)

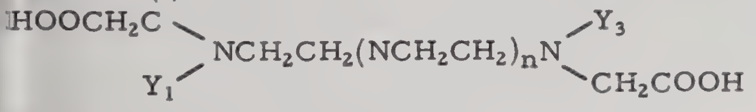
SANN ★ D21 81729 C/46 ★J5 5127-497

Deodorising a cationic surfactant - used for cosmetic purposes, comprises heating the compsn. contg. benzalkonium-type cationic surfactant and a ethylene di:amine deriv.

SANYO CHEM IND LTD 27.03.79-JA-035952

E14 (E16) (02.10.80) C11d-01/62

Method of deodorisation of a cationic surfactant, esp.for a compsn. contg. a benzalkonium series cationic surfactant, and partic. in which a cpd. of its alkali metal salt, of formula (I):



$$(HOOCH_2C)(Y_1)NCH_2CH_2(NCH_2CH_2)_nN(Y_3)(CH_2COOH) \quad (I)$$

(n is 0-4 and Y_{1-3} are H, $-CH_2COOH$ and/or $-CH_2CH_2OH$, but when n is 0, any one of Y_1 and Y_3 is H or $-CH_2CH_2OH$), is added to the compsn. in a proportion of 0.01-1% on the basis of the wt. of cationic surfactant present in the compsn., involves heating the compsn. at 40-80°C.

The method removes easily the odour peculiar to the benzalkonium series cationic surfactant, and thus makes the compsn. a suitable base for a rinsing agent for cosmetical purposes and obviates the necessity for the use of great amts. of masking odours in a cosmetic. 27.3.79 as 035952. (5pp117)

SNKM D21 17132 B/09 =J8 0040-652

Castable nickel alloy used in dentistry - contg. chromium, copper, manganese, niobium and silicon

SANKIN KOGYO 24.06.77-JA-076014

*M26 P32 (20.10.80) *J54010-223 C22c-19/05 +A61k-06/04*

The alloy comprises Cr 9-25% Cu 7-20%, Mn 15-28 %, Nb -7%, Si 0.5-3% and the remainder Ni and incidental impurities.

In an example an alloy of Ni 41.5% Cr 12%, Cu 15%, Mn 0%, Nb 5%, Si 1% and impurity 2.5% was fused and centrifugally cast. The tensile strength, Vicker's hardness and elongation of the cast alloy were 44.5 kg/mm², 200 and 2.5 %, resp. The alloy had the favourable castability, small shrinkage during the solidification and less mould sticking property and was not discoloured in oral conditions. 24.6.77 as 076014, C22c-19/05, A61k-6/04 (20.10.80) SANKIN KOGYO KK (2pp) (J54010223)

OREA ★ D21 81950 C/46 ★NL 8003-421

Hair conditioner prepn. - contg. hydroxymethyl cpd. and bis:hydroxymethyl succinamide etc.

L'OREAL SA 12.06.80-NL-003421 (19.04.66-LU-050923)

E16 (31.10.80) A61k-07/06

Hair treatment prepn. for living human hair comprises a known cosmetic carrier contg. (a) a known hydroxymethyl cpd. and (b) a cpd. of formula $CH_2OH-N(R_1)-C(=X)-R-C(=X)-N(R')-CH_2OH$ (I) in which X is O, S or an imino gp., R' is H or alkyl and R is a ≥ 2C divalent gp.

The prepns.are useful conditioners for application to hair which has been damaged e.g. by atmospheric effects, seawater, permanent waving, bleaching etc. 12.6.80 as 004321 Div. ex. 6705505 (9pp513).

UNIL ★ D21 C/46 ★NO 8000-880

Shampoo

UNILEVER NV 27.03.79-GB-010636

(20.10.80) A61k

KHWO= ★ D21 82040 C/46 ★SU -725-669

Protective hand cream used in cosmetics - includes fruit kernel and mink fat, wax emulsions, amino-benzoic acid methyl ester and other additives to improve protective properties

KHARK WORK HYGIENE 23.08.77-SU-520673

(D22) (05.04.80) A61k-07/40

Hand cream ingredients (wt.%) are: fruit kernel oil 4 to 6, bone fat 2-3, mink fat 5-6, emulsive waxes 8-10, rose wax 2-3, methyl ester of para-amino benzoic acid 0.5-0.6, carbonic acid extract of carrots 0.1-0.5, preservative 0.09-0.11, sodium lauryl sulphate 0.08-0.1, formalin 0.01-0.015, deodoriser 0.8 to 1.0, and water to 100%. Tsurenkova, T.S., Mateenko, R.M., Rezenkina, et al. Bul. 13/5.4.80. 23.8.77 as 520673 (2pp1477)

ASAO D21 88592 Y/50 =US 4230-455

Tooth and bone prostheses prodn. - from powdered hydroxy-apatite and metal, ceramic or glass fibres

ASAHI KOGAKU KOGYO 07.06.76-JA-066217

*P32 (28.10.80) *DT2725-665 A61c-13/08*

Prosthetic teeth and bones having superior affinity for the living body and a compression strength of $\geqslant 4 \times 10^3 kg/cm^2$ and a flexural strength of $\geqslant 2.7 \times 10^3$ kg/cm comprise a composite material contg. a fine powder and ≥ 1 fibrous material.

The fine powder has a particle size of < 2u and comprises ≥ 50 wt.% of $Ca_{10}(PO_4)_6(OH)_2$ and ≥ 5 wt.% of ≥ 1 additive e.g. $Ca_3(PO_4)_2$, $AlPO_4$, Al_2O_3, AlF_3, SiO_2, $Mg(PO_4)_2$, and the fluorides, chlorides and oxides of Li, Na, K, Mg and Ca. The fibrous material comprises fibres, fine filaments and metal whiskers, ceramics or glass ≥ 50 u inside the surface of the prosthesis and have a coefft. of thermal expansion ≤ that of hydroxyapatile.

The composite material used is a laminate of the fibrous material interposed between 2 layers of the fine powder which has been cold compression-moulded then sintered. 4.12.78 as 966233 (+7.6.77-US-804476) (4pp931)

FARH D21 37255 B/20 =US 4230-643

Preparing vinyl ester-crotonic acid copolymer - with multi-addn. of vinyl ester and removal of volatiles, used in hair cosmetics and as adhesives

HOECHST AG 02.11.77-DT-748901

*A14 G03 (A81 A96) (28.10.80) *DT2748-901 +C08f-06/10 C08f-263/04*

Prodn. of a copolymer of ≥1 vinyl ester and crotonic acid comprises (i) copolymerising 70-98 wt.% of the total amt. of vinyl ester with the total amt. of crotonic acid in the presence of a radical-forming initiator and a polymerisation regulator, (ii) adding the remainder of the vinyl ester to the reaction mixt. (iii) mixing the polymer with an etrainer which is a 1-4C alkanol that may contain ≤ 20 wt. %

of water, and (iv) heating the resulting mixt. to vaporise at least a part of the alkanol and distill from the copolymer residual monomer and other volatile impurities.

Pref. ester is vinyl acetate, proprionate and/or butyrate. Pref. reaction is effected in the presence of a polyalkylene glycol to form a graft polymer. Copolymers are suitable as starting materials for adhesives and hair lacquers, hair setting lotions etc. 31. 10. 78 as 956333 (4pp)

WILK D21 67743 U/45 =US 4230-688
Alkylcarboxamides in cooling compsns - acting on skin and mucous membranes
WILKINSON SWORD LTD 18.04.72-GB-017914
*B05 +P34 (28.10.80) *DT2317-538 A61k-07/16 A61l-09/04*

Mfd. consumer prod. for application to or consumption by the human body (I) comprises (a) a vehicle contg. an adjuvant; (b) a cpd. (II) capable of stimulating the cold receptors of the nervous system in the surface tissues of the body.

Pred. is (i) a toiletry comprising a topically administrable vehicle contg. as adjuvants (II) and adourant, antiseptic, colourant and/or surfactant; (ii) foodstuff or beverage comprising orally ingestible vehicle contg. (II) and flavour -ant; or (iii) tobacco (prod.) contg. (II).

Improvement is that (II) is an acyclic carboxamide of formula $R_1R_2R_3C\,CONHR_4$ (IIa). In (IIa), R_4 is 1-5C alkyl, 1-8C hydroxyalkyl or $\leqslant$6C alkylcarboxyalkyl; R_1 is H or 1-5C alkyl; and R_2 and R_3 are each 1-5C alkyl. Provisn. is that (a) R_{1-3} together provide $\geqslant$5C atoms and (B) when R_1 is H then R_2 is 2-5C alkyl and R_3 is 3-5C alkyl branched at the C atom in the α- or β- position. 7. 5. 79 as 036662 C. i. p. 4153679 (+16. 4. 73, 768219-US-351357, 768219) (9pp)

CHOY/ ★ D21 82494 C/46 ★US 4230-689
Hair grooming compsn. - is condensate from heated aq. mixt contg. starch source mung beans and ginseng or similar root
CHOY S 01.05.79-US-034980
(28.10.80) A61k-07/06

Hair-grooming compsn. is obtd. by hydrating a mixt. of 1 pt. white rice and 0. 1-2 pts. mung blans, heating the mixt. to 75-212°F in presence of 1 cup Ginseng tea, enclosing the hot mixt. and recovering the condensate.

Prod. is a clear liq. which is rubbed into the hair and scalp. Regular use improves the colour tone of the hair and cleanses the scalp. 1. 5. 79 as 034980 (3pp955)

BENP D21 79341 C/45 =WP 8002-293
Dispensable water-in-air suspensions - comprising aq. droplets stabilised by hydrophobic metal oxide particles
MCLAUGHLIN GORMLEY 13.04.79-US-029630
*B07 C03 G02 P34 +Q32 (D25) (30.10.80) *EP--18-137 A61k-07/32 A61l-09/04 C09k-03/30 +A61k-09/14 B01j-13 B65d-01/32*
D/S N(AU, BR, DK, JA, NO, RU, SU).

Compsns. contg. a dispensible material comprise a suspension of a liq. phase in air, where the liq. phase comprises small droplets of an aq. liq. stabilised with an interfacial barrier of very fine hydrophobic metal oxide particles.

Methods and appts. for dispersing the compsns. are also claimed.

The compsns. can be used to dispense cosmetics (esp. antiperspirants), pharmaceuticals, insecticides, polishes, cleaning compsns., etc.

The suspensions have the appearance and feel of dry, free-flowing powders, although they can contain up to 90% H_2O. The droplets coalesce when subjected to shear, forming an adherent liq., lotion or cream.
8.4.80. as US0394 (63pp367).
(E) ISR: US3393155; US3801011; US3140052;US4015753; US3544258; US3702302;US2483148; FR1103435.

See Also

D22 CA 1087955 D22 DT 2917272 D23 DT 3016111

D22 : BANDAGES ; DRESSINGS

GILL ★ D22 80754 C/46 ★CA 1087-955
Cleansing-sanitising compsns. - contg. hydroxy-carboxylic acid salt and hypochlorite salt in separate mixable aq. solns., with surfactant
GILLETTE CO 12.01.76-US-648528
E17 (D21 D25 E37) (21.10.80) C11d-03/48

Cleansing sanitising compsn. consists of the separate components (a) an aq. soln. of an H_2O-soluble inorganic salt (I) of a hydroxycarboxylic acid; and (b) an aq. soln. of an H_2O-soluble inorganis salt (II) of HOCl. In addn., (a) and/or (b) also contain a cleansing surface active agent (III). When (a) and (b) are mixed, the resulting compsn. has pH 5-8, contains 0.01-5.5% by wt. (II) and 1-20 % by wt. (III), and has mol. ratio (I):OCl^-=1-13.5:1.

Compsns. contg. (I) at controlled pH's are useful for the rapid cleaning and disinfection of a wide variety of materials, including human skin and clothing, against e.g. Bacillus subtilis var. niger. Unlike known hypochlorite compsns., the compsns. do not irritate skin etc., since (II) is destroyed rapidly after action to innocuous prods. 29. 11. 76 as 266834 (17pp478)

MILO/ ★ D22 C/46 ★CS 7901-619
Silicone yarn for medical use
MILOSCHEWSKY D 12.03.79-CS-001619
A96 F02 P34 (31.07.80) A61m-25

BELI- ★ D22 80764 C/46 ★DL -143-557
Portable automatic controller for heat sterilisers - with temp. probes and recorders for comparison with master batch
BEZIRKSHYGIENEINSPE 22.03.79-DL-211740
S05 T06 P34 (03.09.80) A61l-02/24

A portable automatic controller for heat sterilisation plant, for example for surgical instruments, uses a relay circuit which is programmed with respect to time and temp and starts, controls and terminates automatically the programme controlled sterilisation in the attached sterilisers. Temp. probes are distributed directly at suitable points in the material to be sterilised.

This creates optimum sterilisation conditions with respect to time, temp. and energy consumption. 22.3.79 as 211740 (12pp39)

CELA D22 39592 T/25 =DS 2158-391
Reinforced microporous films - used for breathing bandages sterile packaging and having a low density
CELANESE CORP 27.11.70-US-093514
*A32 F08 +P73 (A17 A92 A96) (06.11.80) *DT2158-391 B32b-05/32 +B29d-27 B32b-27/32*

A strengthened film comprises a layer (A) of microporous polymer film and a macroporous support layer (B), both made pref. of polypropylene and suitable for use as wound dressing. Layer (A) has a bulk density less than that of the corresp. film, which has no open celled structure, a surface area of 2-200m^2/cm^3 and a crystallinity of more than 30%. Layer (A), obtd. from the film by stretching, has a large number of elongated nonporous regions running parallel to each other bordered by porous regions inside which there are fibril-exhibiting regions, parallel to each other and to the orientating direction.

The pore space size is 10-500 nm and a large number of the pores have been bent and twisted to join both surfaces of the microporous film. The layer (A) has a pore volume of 0.05-1.50 cm^3/g and a N passage value of 5-400. Layer (B) has a pore size of at least 5 μ and (based on the total macroporous film) collectively an open surface of 1-50%. 25.11.71 as 158391 (7pp068)

MESR ★ D22 80981 C/46 ★DT 2915-953

Gas component segregation from gas mixt. - by direct admission in separator without ingress of false air

MESSERSCHMITT-BOLKOW-BLO 20.04.79-DT-915953

E36 J01 (06.11.80) B01d-05 B01d-53

The Parent Patent No. 2902391 described a system of sepg. components from a gas mixt. esp. for the recovery of SO_2 from SO_2-air mixt. used for the sterilisation of bottles in the soft drink industry, or the sepn. of ethylene oxide/air mixt. in the sterilisation of surgical appliances, made of plastic.

Instead of directing, in the former case, the spent gases from the steriliser into the chimney flue and extracting the SO_2 from the greatly diluted gases, it is now suggested to pass the spent gas mixt. from the steriliser directly into an SO_2 separator. Only air, free from SO_2 is directed into the chimney flue.

This results in a less complex system, requiring less appts. 20.4.79 as 915953 Add to 2902391 (5pp39)

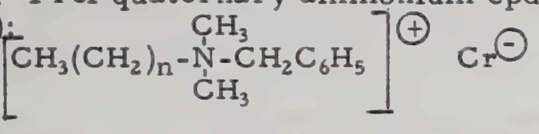
FARH ★ D22 80987 C/46 ★DT 2916-318

Aq. quat. ammonium disinfectant solns. - contg. acidic ortho:phosphoric partial ester cpds. as synergists of bactericidal activity

HOECHST AG 23.04.79-DT-916318

C03 E16 P11 (C01 E11) (06.11.80) A01b-33/12 A01n-57/10 C02f-01/50

Aq disinfectant solns contg a quaternary ammonium cpd. and, optionally, further additives with detergent action, additionally contain ⩾ 1 acidic orthophosphoric acid partial ester. Pref quaternary ammonium cpds are those of formula (I):



$$\left[CH_3(CH_2)_n\text{-}\underset{CH_3}{\overset{CH_3}{N}}\text{-}CH_2C_6H_5\right]^{\oplus} \quad Cr^{\ominus}$$

(where n is 12-18).

Used for cleaning and disinfectant agents, e.g for food processing or agricultural equipment or public facilities such as hospitals or swimming baths. The biocidal activity of quaternary ammonium cpds is increased or opened by combination with orthophosphoric acid partial esters. 23.4.79 as 916318 (14pp280)

HAHG ★ D22 81006 C/46 ★DT 2916-564

Sanitary tampon blister package - with wasted portion heeding insertion end clear of pack sides and bottom preventing damage to protective diagnostic or lubrication coating

HAHN DR C KG 24.04.79-DT-916564

Q34 (06.11.80) B65d-83 B65d-85

A blister package for sanitary tampons is made of deep drawing foil such as polystyrene or PVC which is sealed above the insertion end of the tampon by a metal, paper or compound foil. The tampon is held in the package at the end opposite to the insertion end by a restriction, leaving an opening of keyhole shape into which the tampon snaps in. This restriction keeps the insertion end of the tampon clear off the package bottom and sides so that any protective coating for diagnostic or lubrication purposes cannot become damaged.

The air space also ensures that any coating is not prematurely softened if stored under not ideal conditions. 24.4.79 as 916564 (10pp39)

FARB ★ D22 81062 C/46 ★DT 2917-272

Solvent-free polymerisation of unsatd. carboxylic acid - and opt. co-monomer, on inert carrier powder, giving hydrophilic filler

BAYER AG 27.04.79-DT-917272

A14 B04 C03 (D21) (06.11.80) C08f-20/04 C08f-22/02

Polymers of olefinically unsatd. carboxylic acids are prepd., for use as a hydrophilic filler, by (a) mixing an inert powder carrier with the acid and opt. other ethylenically unsatd, monomers, and (b) polymerising the free-flowing mixt with radical initiators. Carriers include SiO_2 (claimed) sand, C, cellulose, wood flour, polyacrylonitrile, or the end-prod. itself. The claimed monomers are (meth)acrylic acid and maleic anhydride. Co-monomers are partic. styrene or vinyl acetate, and cross-linking monomers, e.g. (meth)acrylamide.

The prods, are used, esp. as NH_4 or alkali salts, as fillers for synthetic leather, in textile dressings, as dispersion aids and thickeners, as drying agents in cosmetics, foods dyes and pigments, for increasing water absorption of bandages, nappies or straw for animal rearing, as soil improver and in medicine. 27.4.79 as 917272(11pp 510)

MERE ★ D22 81076 C/46 ★DT 2917-446

Surgical suture network used for healing bone defects - contains opt. resorbable polymer and other threads having specified thickness

MERCK PATENT GMBH 28.04.79-DT-917446

A96 P32 (06.11.80) A61f-01 A61k-31/74

Surgical material consists of resorbable organic threads having thickness 50-300μ and/or wires having thickness 100-750μ. forming a network having inside mesh width 1-10mm.

Materials are used in healing bone defects, in implanting endo-prostheses and in carrying out joint osteo-syntheses. Materials immediately improves flexibility, stabilises bone defects and also ensures high long-life stability. On resorption of material, the cavity system formed in bone cement has favourable dimensions for bone growth. Post-operative removal, if necessary, is helped by using ⩾ 1 non-resorbable material, esp metallic, network layers. 28.4.79 as 917446(18pp200)

ZENM- ★ D22 81183 C/46 ★DT 3015-538

Disposable sanitary napkin - comprises water-absorbent layer(s) contg. water absorbing polymer powder and pref. PVA-gelling accelerator and PVA foil layer(s)

ZENMI CO LTD 28.04.79-JA-053078

A96 P32 (06.11.80) A61f-13/18

Sanitary napkin comprises ⩾1 layer, (A), prepd. by using a water-absorbing substance contg. a powder of a water-soluble or water-dispersible and strongly water-absorbing polyer, (I) and ⩾ 1 pref. adjacent foil layer (B) contg. a water-soluble or water-dispersible PVA.

Menstrual blood is absorbed and retained by layer (A), while foil layer (B) prevents the escape of the absorbed blood. Napkin decomposes in water. 23.4.80 as 015538 (30pp200)

KAMA/ ★ D22 81227 C/46 ★FR 2439-587

Surgical, partic. self adhesive dressing for non white patients - has outer cover coloured to match skin of negro, oriental or coloured person

KAMATARI E 20.09.78-FR-026932

*P32 P34 (27.06.80) A61f-13 A61l-15/**

The backing sheet of the dressing, which is visible after the dressing has been applied, is now made of a material which is coloured to match as nearly as possible, the colour of the patients skin.

Such a dressing is clearly less obvious on a negro, oriental or coloured person than the conventional dressings which are only available in white, pink and flesh colours.

A range of colours is suggested to suit skins of all races, e.g. ebony black, coffee, chocolate, chestnut, copper and tanned leather. 20.9.78. as026932 (5pp448).

LEVI/ D22 65315 Y/37 =GB 1571-049

Surgical dressing contg. stretchable fabric layers - covered by micro-porous membrane permeable to gases but impermeable to microorganisms

LEVINE N S 01.03.76-US-662748

*A96 P32 +P34 P73 (09.07.80) *DT2708-822 +B32b-05/04 B32b-23/10 B32b-25/04 B32b-27/06*

Surgical-medical dressing consists of fabric layers joined at closely spaced points which allow stretching in 2-directions. The dressing is sufficiently thick for fibro-elastic ingrowth to permit anchoring to tissue denuded of skin but not so thick to allow the dressing to become filled by body fluids. The threads of the layers are spaced enough to permit invasion by cellular tissue, but close enough to ensure adherence of the dressing to the tissue.

Pref. the outer layer is impermeable, translucent, and has a thickness of 0.5-10 mils. e.g. of PTFE, silicone rubber, latex or polypropylene. 1.3.77 as 008587 (7pp1376).

HOWM- D22 76152 Y/43 =GB 1571-108

Antibacterially active polyfilament surgical suture - impregnated with a neomycin fatty acid salt, esp. neomycin palmitate

HOWMEDICA INC (SUTU) 12.04.76-US-676005

*A96 B03 F01 P34 (09.07.80) *DT2638-831 +D02g-03/36*

Surgical suture (I) comprises a soft, pliable polyfilamentous suture pref. a silk esp. a polyethylene terephthalate suture, impregnated with a neomycin salt. The neomycin salt contains $\geqslant$1 12-18C fatty acid pref. neomycin palmitate at a pref. concn. of $\geqslant$3mg/yd. of suture. (I) also has a wax, pref. a mixt. of beeswax and paraffin wax, dispersed uniformly through the suture.

(I) can be opt. dyed and are polyfilamentous sutures with improved "hand" (softness and flexibility) and knotting characteristics. They also have long lasting biocidal properties without PTFE particles having been introduced. 18.8.76 as 034368 (8pp918).

FARB D22 35142 A/20 =GB 1578-895

Orthopaedic medical or veterinary dressing - contg. web coated with prepolymer of aromatic poly:isocyanate and poly:ol contg. tert. amine nitrogen

BAYER AG 09.11.76-DT-651089

*A96 P32 +P34 (A25) (12.11.80) *DT2651-089 +D06m-15/52*

Novel bandaging materials comprise an air permeable flexible fabric impregnated and/or coated with 50-300 wt. % (w.r.t. fabric) of isocyanate prepolymer. The prepolymer is the reaction prod. of $\geqslant$1 aromatic polyisocyanate and $\geqslant$1 polyol contg. tert. amino N atoms. The prepolymer has a free isocyanate content of 5-30 wt.% and contains 0.05-2.5 wt.% tert. amino N atoms. Pref. the untreated fabric weighs 20-1000, esp. 30-500, g/m^2. Pref. it is a textile fabric.

Bandages are lighter in wt. and more resistant to moisture than those stiffened with plaster of Paris. They are also more permeable to air and transparent to X-rays. 9.11.77 as 046621 (8pp974).

JOBS- D22 57224 Y/32 #GB 1578-941

Inflatable emergency antishock trousers - with front and rear panels permanently joined at inseams and with outer edge fasteners

JOBST INST INC 01.03.76-US-662801 (14.03.77-GB-010590)

*F07 P32 (12.11.80) *US4039-039 A61f-05/04*

An inflatable pressure garment for first-aid treatment has front and rear panels of flexible fabric covering the abdomen and part of the legs, a permanent join between the panels along the leg inseams and separable fasteners for securing the panels together along the outer margins of abdomen and legs.

A flexible gas-impervious fabric chamber is located between the panels and is linked by a conduit with the garment exterior. The fasteners are pref. double-ended slide fasteners, there is a pressure gauge for the chamber and a manual valve provides slow release of gas from the chamber. 14.3.77 as 010590 (8pp1358).

BENY/ ★ D22 C/46 ★HU T018-918

Biological surgical dressing, partic. for burns - made from human blood cell concentrate

BENYO J 02.09.77-HU-BE1306

P34 (28.10.80) A61l-15/ A61l-25/04*

KEND ★ D22 C/46 ★IT 1046-915

Bags for collection of organic fluids

KENDALL CO 08.09.75-IT-051242

P34 (31.07.80) A61m

NISY ★ D22 81403 C/46 ★J5 5125-865

High absorbability film mfr. - comprises using saponified prod. of copolymer and e.g. PVA resin as part of film, drying and heat treating

NIPPON SYNTH CHEM IND 20.03.79-JA-032550

A96 P21 P32 (A14) (29.09.80) A41b-13/02 A61f-13/18 C08j-09/28

Mfr. of a film having high absorbability and high leak-proofness, used as physiological napkin, diaper, etc., comprises the saponified prod. of a copolymer of (0.2-50 mole-%) unsatd. dicarboxylic acid monomer (excluding their dialkyl esters) or a mixt. of $\geqslant$2 unsatd. dicarboxylic acid monomers and 99.8-50 mole-% of a vinyl ester, or a mixt. of the saponified copolymer prod. and a water-soluble resin, e.g., PVA resin, polyacrylamide resin, etc., being used as the main component in the mfr. and the film is dried and heat-treated.

For example, a 30μ-thick film was prepd. from a 20wt. % aq. soln. of a mixt. of 50 pts. wt. of a saponified copolymer (of a saponification degree of 95 mole-%), consisting of 5 mole-% maleic monomethyl and 95 mole-% vinyl acetate, and 50 pts. wt. of a PVA (of a saponification degree of 88.5 mole-% and a polymerisation degree of 1700), and then the film was heat-treated at 140°C for 30 mins. in a stretched state. 20.3.79 as 032550. (4pp117)

NICH- ★ D22 81674 C/46 ★J5 5127-402

Graft-modified starch and graft-modified CMC - having excellent water absorptivity and useful as towels, diapers, gauze, etc.

NICHIDEN KAGAKU KK 26.03.79-JA-036018

A11 (A14 A96) (02.10.80) C08b-31

Graft-modified starch comprises (1) starch, (2) monomer of formula $CH_2=CR_1COOM$ (I), and (3) monomer of formula $CH_2=CR_2COO(CHR_3-CHR_4-O)_n-R_5$ (II) in a ratio of 100:50-500:10-200 and is produced by graft-copolymerising $\geqslant$1 starches selected from starches and various processed starches, monomer of formula (I) and monomer of formula (II), (where R_{1-4} are H or methyl; R_5 is H, 1-5C alkyl or 1-5C alkyl halide; and M is H, alkali metal or ammonium salt).

Also claimed is graft-modified CMC comprising CMC having an etherification degree of 0.3-1.5, monomer of formula (I) and monomer of formula (II) in a ratio of 100:50-500:10-200 and produced by graft-copolymerising the above components. Pref. (2) includes (meth)acrylic acid and its alkali metal salts, and (3) includes hydroxyethyl acrylate, diethylene glycol methacrylate. 26.3.79 as 036018. (4pp136)

NIPK D22 22787 Y/13 =J8 0040-561

Disinfectant contg. dichlorovinyl-salicylamide metal salt - with excellent antibacterial, antiseptic and algicidal effects

NIPPON KAYAKU KK 13.08.75-JA-097519

*A60 C01 E12 (D15) (18.10.80) *J52021-323 +A01n-37/18*

The active cpd. is obtd. by reacting N-(β, β-dichlorovinyl) salicylamide with an alkali metal hydroxide or with a metallic halide such as Zn or Mn chloride, a metal salt of acetic acid such as Zn or Cu acetate or a metal salt of sulphuric acid such as Cu sulphate in the presence of the alkali metal hydroxide. Reaction is generally in the presence of an inert solvent such as water, (m)ethanol, DMF or acetonitrile.

The active cpd. is generally used as a wettable powder, emulsion, ointment, liquid and the like. Slime can be prevented by directly applying it to a water system, and deterioration of paint and paste can be prevented by mixing it with them, and stain and decay of wood, fibre, paper and synthetic resin can be prevented by applying it on the surfaces or incorporating inside. The disinfectant has excellent antibacterial, antiseptic and algae-killing effects. and is less toxic than conventional compsns. 13.8.75 as 097519 A01n-37/18 (18.10.80) NIPPON KAYAKU KK (4pp) (J52021323)

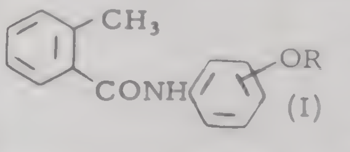
TSUB D22 69417 X/37 =J8 0040-562

Antiseptic, antifungal wood preservative - contg o-methylbenzanilide deriv

KUMIAI CHEM IND KK 23.01.75-JA-010053

*C03 E14 F09 (18.10.80) *J51086-104 +A01n-37/24*

An antiseptic and antifungal agent for wood contains an available (o-methylbenzanilide deriv.) of formula (I):



(where R is lower alkyl, alkenyl, alkynyl, benzyl or chlorobenzyl). The material is prepd. in liquid medium, emulsion oil, medium, etc. by compounding diluent or emulsifying agent, and is used by a pressure-charging, dipping, blowing, spraying or coating methods usually employed in wood treating.

Deterioration of wood by microorganisms is prevented and a durable treated prod. is obtd. 23.1.75 as 010053 A01n-37/24 (18.10.80) KUMIAI CHEM.IND. KK (5pp) (J51086104)

NISH/ D22 02959 Y/02 =J8 0040-566

Fungicidal compsn. for protecting materials from microorganisms - contains 2-(3,5-dimethyl 1-pyrazolyl) 4-phenyl 6 hydroxy pyrimidine

NISHIMURA T 22.05.75-JA-061317

*C03 F06 G02 (18.10.80) *J51136-830 +A01n-43/54*

Compsn. can be applied to fabrics, paint, leather, adhesives, photographic film, cosmetics, electrical appts. house construction material etc.

Active cpd. possesses wide fungicidal spectrum, e.g. Escherichia coli, 6.3 µg/ml. Klebsiella pneumoniae 50 µg/ml, Shigella dysenteriae 100 µg/ml, Bacillus subtilis, 0.8 ug/ml, etc. Compsn. has low toxicity. 22.5.75 as 061317, A01n-43/54 (18.10.80) NISHIMURA T (2pp) (J51136830)

DAII D22 10777 B/06 =J8 0040-716

Softening and anti-curling agent for paper - contg. e.g. lanolin, lanolin alcohol, lanolin fatty acid and alkylene oxide addn. prods. of lanolin fatty acid- poly:hydric alcohol ester

DAIICHI KOGYO SEIYA 23.05.77-JA-060194

*A97 E19 F09 (20.10.80) *J53147-803 D21h-01/48 D21h-03/08*

Softening and anti-curing agent for paper, which contains as essential ingredient(s) $\geqslant$ 1 material selected from (a) lanolin (and its alkylene oxide addn.prods), (b) lanolin alcohol(and its alkylene oxide addn.prods.), (c) lanolin fatty acid (and its polyhydric alcohol esters, alkanolamides, polyoxyalkyleneglycolesters, and soaps), and (d) alkylene oxide addn. prods. of lanolin fatty acid polyhydric alcohol esters.

Softening agent is used for treatment of tissue paper, paper towels, paper diaper etc. Essential softness-impairing ingredients are not irritative to skin and have desirable moisture-retaining properties. 23.5.74 as 060194, D21h-1/48, 3/08 (20.10.80) DAIICHI KOGYO SEIYAKU (3pp173) (J53147803)

YAMA/ ★ D22 81937 C/46 ★J8 0041-210

Tampon lubricant prepn. - by admixing poly:methyl siloxane (deriv.) and tocopherol, and reducing pressure

YAMAUCHI A 29.01.74-JA-012627

A96 (22.10.80) A61k-47

Polymethyl siloxane or its deriv. and tocopherol are admixed at normal temp. followed by a redn. in pressure. Transparent and colourless tampon lubricant is obtd. 29.1.74 as 012627, A61k-47/00 (22.10.80) YAMAUCHI A (2pp22) (J50103897)

SUME D22 78441 A/44 =US 4229-838

Vascular PTFE prosthesis - contg. quaternised polyethylene imine onto which heparin is fixed

SUMITOMO ELEC IND KK 01.07.77-JA-079385

*A96 B07 P32 +P34 (A14) (28.10.80) *BE-868-624 A61f-01/24*

A vascular prosthesis has a composite structure of PTFE porous tubing and polyetheleneimine; contained within the pores of the tubing. Pref. the imine is present only in the pores on the inside of the tubing. The imine is water insolublised with the amino gps. quaternised, and, heparin is ionically bound to it. The imine pref. has a microporous structure. The PTFE is pref. composed of fibres and nodes connected to one another by the fibres. The fibres on the outside of the tubing pref. have a mean dia. at least twice that of the fibres on the inside. The long axis of the nodes on the outside of the tubing are pref. twice as long on average as those on the inside.

The prosthesis is more suitable for replacing narrow blood vessels than the prior art. 3.7.77 as 921680 (9pp965)

MERI ★ D22 82338 C/46 ★US 4230-105

Bandage for delivering drugs across skin or mucosa - has pressure sensitive adhesive layer contg. drug and heat generating layer

MERCK & CO INC 13.11.78-US-960354

B07 P34 (28.10.80) A61l-15

Improved bandage for delivering drugs through the skin or mucosa comprises (a) a heat-generating layer contg. a hydrate-forming inorganic salt (I) dispersed through an inactive matrix, and (b) a pressure-sensitive adhesive layer contg. dispersed drug.

(I) can be replaced by other heat-generating chemicals. Because of the heat generated in the first layer, the rate of absorption of drug by the body is increased.

Suitable (I) include $CaCl_2$, Na_2SO_4, $AlCl_3$, $MgCo_3$, etc. and the first layer can be sepd. from the drug-contg. layer by an impervious film. Any systemic or topical drug can be administered e.g. antibiotics, antiinflammatories, antihistamines or tranquillisers. After application to the skin the bandage is moistened, then opt. sealed with an Al foil to prevent heat loss. 13.11.78 as 960354 (4pp1251)

AIRL D22 60144 B/33 =US 4230-478

Deodorant compsn. or plant for animal waste fertilisers - contains hydrogen peroxide, aromatic terpene and emulsifier, e.g. polyoxyethylene

AIR LIQUIDE L' 03.02.78-FR-003000

*A97 P34 (28.10.80) *DT2902-173 C05f-03*

A deodorising compsn. consists of an aq. mixt. of (a) H_2O_2 at a concn. expressed at 100% H_2O_2 of 50-500 (pref. 330-600) g/l as an oxygen generating cpd.; (b) pine oil or the seoquiterpenes of turpentine (pref. terpene) in a concn. of 50-400 ml/l as an odour masking agent; (c) 5-50 (pref. 50) g/l of a biodegradable emulsifying surfactant pref. of the polyoxyethylene type. Pref. the oxygen generating cpd. and masking agent are mixed at the time of use.

The compsn. is simple and fast to use. It inhibits the odours from organic by-prods. esp. animal waste during storage and handling and until assimilation by the soil. The two main components (a) and (b) have a synergistic effect. 23. 1. 79 as 005836 (4pp918)

MOOR- ★ D22 82480 C/46 ★US 4230-663

Low temp. sterilisation of e.g. contact lens - by surrounding with gaseous hydrogen peroxide in sealed container

MOORE-PERK CORP 10.07.79-US-056177 (26.09.77-US-836665)

E36 P34 (28.10.80) A01n-59 A61l-02/20

Parent patent US 4169124 claims a process for cold sterilisation by surrounding an article to be sterilised with gaseous H_2O_2 at a concn. of $<$75 mg/l and a temp. of $<$ 80°C, until sterilisation is complete. Present specification claims the sterilisation of contact lenses in a sealed container using the process. After sterilisation is complete, the chamber is vented and the lens is recovered.

Process is cheaper to operate than prior art ethylene oxide cold sterilisation processes, and less standing time is necessary to eliminate the sterilising agent from the treated lenses. 10. 7. 79 as 056177 Div. ex. 4169124 (5pp513)

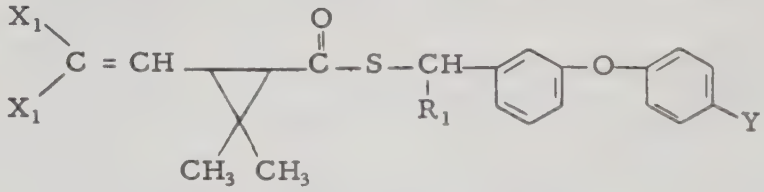
CIBA D22 03790 C/03 =US 4230-722

Insecticidal cyclopropane carboxylic acid thiol ester derivs. - prepd. by esterification of the thio-acid with a 3-phenoxy-benzyl halide (NL 28.12.79)

CIBA GEIGY CORP 11.05.79-CH-004414 (26.06.78-CH-006935)

*C03 E14 F06 (28.10.80) *DT2925-290 C07c-153/02 +A01n-37/14*

Cyclopropane carboxylic acid esters of formula (I) are new



(I)

In (I), X_1 is F, Cl or Br; R_1 is H, methyl, ethynyl or CN; and Y is H, F, Cl or Br. Specifically X_1 is Cl and Y is H. (I) are useful for combating insects and acarids, esp. for protecting keratinous material against attack. 18. 6. 79 as 049367 (6pp936)

ABBO ★ D22 82562 C/46 ★US 4230-846

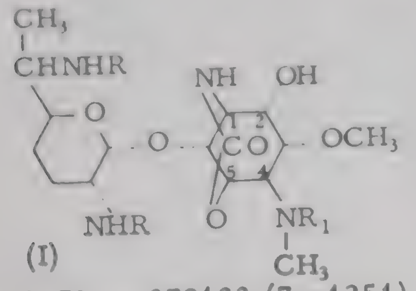
1,5-Fortimicin-B carbamate derivs - useful as intermediates for de:oxy:fortimicin antibacterials

ABBOTT LABORATORIES 26.09.79-US-079133

B02 C02 E13 (28.10.80) C07h-17

Fortimicin carbamates of formula (I) and their pharmaceutically acceptable salts are new: Each R = H or benzyloxy-carbonyl (Z). R_1 = alkyl (opt. substd. by OH, NH_2 or mono-or di-alkylamino), H, trihaloalkoxycarbonyl or opt. N-protected amino acid residue. All alkyl etc. have 1-6Cγ.

They are prepd. e.g. for 1,2-cyclic carbamates by treatment with NaH/DMF. (I; R = Z) are intermediates for 2-deoxyfortimicin B and its derivs., which are antibacterials. (I; R = H) are useful for confirming the identity of the R = Z cpds. Fortimicin B-1, 5-carbamate and its 2, 6^1, 2^{11}-tri-N-Z; 2^1, 6^1-di-N-Z- and A-N-(methyl or 2,2,2-trichloroethoxycarbonyl)-2, 6^1-di-N-Z-derivs. are specifically claimed.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26. 9. 79 as 079133 (7pp1251)

COUR ★ D22 82622 C/46 ★WP 8002-300

Prepn. of nonwoven alginate, wound dressing fabric - by spreading calcium alginate filaments on water pervious support, then drying the filaments

COURTAULDS LTD (ALDR/) 18.04.79-GB-013392

A96 F04 P34 (30.10.80) A61l-15 D21h-05/12

D/S N(JA, US) + E(CH, DT, FR, GB).

Non-woven alginate fabric useful as a wound dressing is prepd. by (a) spreading a tow of Ca alginate (I) filaments in a flow of water; (b) over-feeding the filaments onto a water-pervious support so that they cross over each other; and (c) drying the filaments so that they become bonded to each other at the points where they cross over and touch.

A simple process affords a non-woven alginate fabric which is non-brittle, etc. and which is esp. useful as a haemostatic wound dressing.

17.4.80. as GB0066 (9pp478).

(E) ISR: US4104115; US3550592; FR-971200.

See Also

D13 US 4230595 D21 SU 725669

D23: OILS; FATS; WAXES

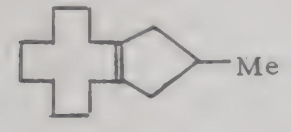
BADI ★ D23 80997 C/46 ★DT 2916-418

14-Methyl-bi:cyclo-10,3,0-pentadecene-1,2-muscone precursor prepn. - by alkylating cyclo:dodecanone with allyl halide, ozonising cyclising, conversion to bi:cyclic alcohol, dehydration and opt. isomerisation

BASF AG 23.04.79-DT-916418

E15 (06.11.80) C07c-13/32 C07c-35/22

14-Me-bicyclo-(19,3,0)-pentadecene-[1(12]having formula (I) is prepd by (A) a phase transfer alkylation reaction of cyclododecanone (II) with an allyl halide (III)(where X is Cl, Br, or I); (B) O_3-dissociation of the 2-(2'-methylene-1'--propyl)-cyclododecanone (IV) obtd to form 2-(2'-oxo-1'-propyl)-cyclododecanone (V): (C) cyclisation of (V) to bicyclo (10,3,0)-pentadeca-15-en-14-one (VI); (D) reaction of (VI), opt after hydrogenation to bicyclo(10,3,0)-pentadecan-14-one, (VIa), with an MeMg halide, to form the new bicyclic alcohols (VII) or (VIIa); (E) dehydration of the alcohols to the new methylated bicyclic cpds. (VIII) or (VIIIa); (F) hydrogenation of the 14-Me-bicyclo (10.3,0)-pentadeca-[1(12).14]-diene (VIII) or (G) isomerisation of the 14-Me-bicyclo-(10,3,0)-pentadeca-14-ene (VIIIa) by heating with acids.



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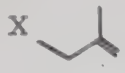

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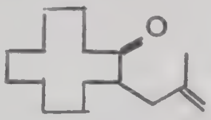

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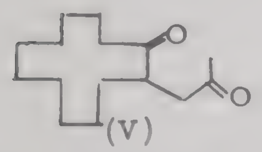
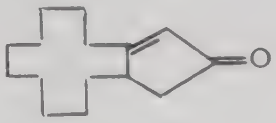
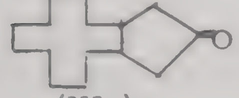


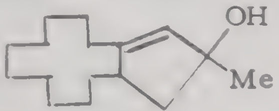
(V)



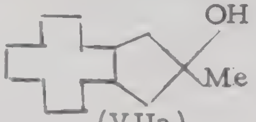
(VI)



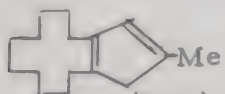
(VIa)



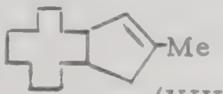
(VII)



(VIIa)



(VIII)



(VIIIa)

(I) is an intermediate in muscone musk perfume prepn. and allows a simple prepn of muscone. 23.4.79 as 916418 (20pp200)

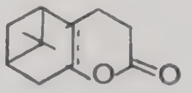
FIRM ★ D23 81214 C/46 ★DT 3016-111

Perfume and aromatic tri:cyclic lactone cpds. - esp. 10,10-di:methyl-4-ox-tri:cyclo-(7.1.1.0(3,8) en-5-one and undecan-5-one prepn. from pinocarvone

FIRMENICH SA 27.04.79-CH-003972

E13 (D13 D21 D25) (06.11.80) A23l-01/22 A61k-07/46 A61k-47 C07d-311/94 C11d-03/50 C11d-09/44

New tricyclic lactons cpds are of formula (I): (in which the broken line indicates a single or double bond).



(I)

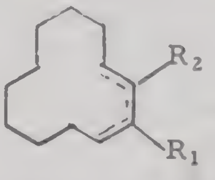
(I) are odorants and aromatics. The odour of (I) is sweet, plant-like and slightly spicy, with notes reminiscent of tobacco, honey and tonka beans; they may be used in perfume compositions or in articles such as soaps, detergents, or household or cosmetic products. The flavour or anoma of (I) is sweet, floral, plant-like, woody and coumazine-like; they can be used in various artificial aromas such as caramel, nut, coconut, honey or cocoa aromas, or fruity(e.g. cherry)aromas. 25.4.80 as 016111 (13pp280)

BADI D23 06512 A/04 =GB 1578-804

Cyclododecane and cyclododecene cpds. - useful as substitutes for other macro:cyclic cpds. having a musk aroma (NL 11.1.78)

BASF AG 09.07.76-DT-630835

*E15 (12.11.80) *DT2630-835 C07c-31/13 C07c-33/05 C07c-49/54 C07c-69/02*



(I)

Substd. cyclodecane or cyclodecene of formula (I) is novel. R_1 is H, Me or Et and R_2 is $-COR_3$ or $-CR_3R_4OR_5$ (where R_3 is 1-3C alkyl, R_4 is H or 1-3C alkyl and R_5 is H, -CH-H (sic), -COMe-, -COEt or $-COC_2H_3$.

The cpds. of formula (I) (where R_1 is H and R_2 is -COMe, -CH(OH)Me, -CHMe-OCOMe or $-CMe_2OH$) are also claimed. The hydroxy derivs. can be prepd. by reducing the corresp. carbonyl cpd. by catalytic hydrogenation, complex hydride redn. or by Meerwein-Porndorf method.

(I) are readily accessible, inexpensive cpds. which have macrocyclic-type musk scent. 8.7.77 as 028741 (7pp977).

FARB D23 69737 V/40 =J8 0041-216

Continuous prodn. of dl-menthol - by hydrogenation of precursors and/or isomers with a cobalt and manganese catalyst

BAYER AG 24.03.73-DT-314813

*B05 E15 (22.10.80) *DT2314-813 B01j-23/84 C07c-29/13 C07c-35/12*

The prepn. of dl-menthol (I) is carried out by continuously hydrogenating a cpd. with the same carbon skeleton as menthol but contg. ≥ 1 double bond and an O-contg. substit. in the 4 posn. and/or an opitcally (in)active stereoisomer of methanol at 170-220°C and ≥ 25 bar (pref. > 200 bar) using a fixed bed of a Co catalyst contg. 10-40 (pref.20-25) wt % Mn (based on the total Co+Mn content), the amt. of H_2 used being ≥ 10 times the amt. required to hydrogenate a benzene ring. By-prod. formation is minimised by this method. 22.3.74 as 031617 (clg.24.3.73-DT-314813) C07c-35/12, 29/136 B01j-23/84 (22.10.80) BAYER AG (-pp) (J49135946)

CANP D23 84203 B/47 =US 4230-630

Continuous bleaching of oils and fats esp. edible material - using a moisture contg. bleaching adsorbent

CANADA PACKERS LTD 19.07.78-US-926071

*(D13) (28.10.80) *BE-877-779 C11b-03 +C09f-05/10*

In continuously bleaching oil with a bleaching adsorbent, improvement comprises (i) preheating the oil to bleaching temp. of 70-180°C; (ii) introducing the oil into a mixing vessel having an outlet in a lower region so as to cause the oil to swirl downwardly through the container; (iii) adding bleaching adsorbent contg. moisture to the swirling oil so the oil and adsorbent are mixed and water is vaporised from the adsorbent and forms a protective atmos. over the oil to protect the oil from oxidn; and (iv) withdrawing the mixt. from the vessel through the outlet.

Operation is simpler and quicker and the feedstocks are easily changed. Process is esp. used for bleaching triglyceride oils. 19. 7. 78 as 926071 (10pp982)

GRFJ ★ D23 82493 C/46 ★US 4230-687

Encapsulation of active agent in homogeneous natural polymer matrix - to encase essential oils, flavourants, medicines esp. vitamin/A, obviating need for spray drying, and reducing loss of volatiles

GRIFFITH LABS INC 30.05.78-US-910101 (02.09.76-US-719740)

A97 B07 C03 (D13) (28.10.80) A01n-25/28 A61k-09/26 A61k-31/07 B01j-13/02

Encapsulation of an active agent (I) in (II), a storage-stable chemically modified starch, gum and/or protein matrix, comprises transforming (II) during processing into a homogeneous, continuous, paste-like phase. Firstly, 1 wt. pt. (II) and 0.04-5 wt. pts. (I) are combined with 10-50 wt. % water (w. r. t. wt. (I), (II) and water) in amt. limited to ensure development and maintenance of a homogeneous, high-viscosity paste during processing.

The mixt. is then subjected to shearing stress and vigorous mechanical working, opt. with heating, to distribute (I) as a microdispersion throughout (II), the mixt. then being worked into a viscous, mouldable mass of viscosity >50,000 cP. This mass is then shaped without applicn. of compression sufficient to expel (I), and dried, other than by spray-drying. 30. 5. 78 as 910101 (+21. 3. 77-US-779463) (17pp949)

UNIL D23 37159 B/20 =US 4230-737

Margarine fat based on eighteen carbon fatty acids - contg. hardened and unhardened fats partly transesterified

LEVER BROTHERS CO 10.11.77-GB-046842

*(D13) (28.10.80) *BE-871-930 A23d-05*

Margarine fat has a difference in dilation value at 15°C and 25°C of ≥100 and at 35°C ≤100, and comprises ≥95% of fats contg. ≥ 80 wt. % of 18C fatty acid residues.

Part of the fats are hardened, and the non-hardened fats are interesterified with hardened fats contg. ≤ 55% of trans-acids, such that the margarine fat contains 20-60 wt. % of interesterified fats and 80-40 wt. % of non-interesterified fats. The non-interesterified fats comrise both non-hardened fats and fats hardened to a trans-content of 50-70%, such that the wt. ratio of hardened to non-hardened fats in the non-interesterified part is 1:1-5, and 4:1-1:3 in the interesterified part.

The margarine prepd. has an improved mouthfeel with a reduced sandiness caused by recrystallisation. 6. 11. 78 as 958309 (3pp931)

See Also

D13 DT 2918180

D24 : SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25 : OTHER DETERGENTS

DEAK ★ D25 80940 C/46 ★DL-144-073

Stabilising peroxide-contg. solns. - by adding long-chained alkyl- or aralkyl amino alkylidene phosphonic acid salt or ester

AKAD WISSENSCHAFT DDR 31.05.79-DL-213276

E11 (E34) (24.09.80) C11d-03/36

Peroxide-contg. solns., esp. aq. solns., are stabilised by adding, at pH 5-12 and 5-100°C., 0.1-20 wt.%, w.r.t. peroxide, of ≥ 1 aminoalkylidene phosphonic acid cpd. having formula $R-N(CXY-PO(OZ)_2)_2$, (I), (where R is branched or linear 8-30C alkyl or benzyl; X and Y are H or 1-4C alkyl and Z is H, 1-10C alkyl, metal or ammonium).

Stabilised solns. are used as bleaching or detergent compsns., esp. for the fibre-protective bleaching of textiles. (I) are stable to hydrolysis, non-hygroscopic, have good stabilising activity, lower the surface tension of aq. systems and improve builder activity. 31.5.79 as 213276 (13pp200)

HEIN/ ★ D25 80995 C/46 ★DT 2916-416

Powdered detergent compsn. forming acid wash liq. - contg. powdery alkali-releasing neutraliser coated with nonionic surfactant and/or film-former

HEINLEIN K H 23.04.79-DT-916416

(06.11.80) C11d-03/04

Powdery detergent- or pre-wash compsns., forming an acid wash liq having pH 1-4 and contg. one or more solid or pseudo-solid acids in addn to tensides, also contain powdery alkali-releasing components which automatically neutralise or basify the acid wash liq., partly or completely within 2-25 min. The alkalies can be Na metasilicate, soda water glass, CaO, MgO, Mg-oxychloride, $CaCO_3$ and/or $MgCO_3$, and are coated, at least partly but advantageously completely, with a film which dissolves only slowly in the acid wash liq. and/or a sheath of a nonionic tenside, pref a C_2H_4O adduct of synthetic or natural fatty alcohols.

Compsns are used esp in domestic washing machines and/or for washing in a phosphate-free wash liq. A 1- or 2-step wash process can be used. Wash liq is neutralised in a pre-determined time and the wash water can be discharged without damage. 23.4.79 as 916416(12pp200)

HENK ★ D25 81017 C/46 ★DT 2916-656

Optical brightener-free textile detergent compsn. - contg. aliphatic polyglycol ether(s), alkyl pyridinium salt and standard additives

HENKEL KG AUF AKTIEN 25.04.79-DT-916656

A97 E17 (E13) (06.11.80) C11d-01/72

Powdery of liq. textile detergent compsn. contains, by wt (a) 5-50% of $\geq$ 1 aliphatic polyglycol ether having formula $R^1R^2CHCH_2O(CH_2CH_2O)_nH$ (I) (where R^1 is a linear 8-20C alkyl or alkenyl gp; R^2 is H or 1-4C alkyl and n is 2-20), (b) 0.5-10(2-6)% 12-16C alkyl-pyridinium salt, (II), and (c) 40-94.5% standard detergent compsn. components.

Textiles can be washed by hand or machine at $\leq$ 60°C. The compsns. have high washing power, optimum foaming behavious and are free from optical brighteners. Optical brightener transfer from brightener transfer from brightener-contg. laundry pieces to brightener-free laundry during washing is prevented by (II) and colour tone displacement are avoided. 25.4.79 as 916656(15pp200)

KAOS ★ D25 81132 C/46 ★DT 3013-904

High-foaming skin non-irritant alkaline cleansing compsns. - contg. partly neutralised succinic acid derivs. having near-neutral pH on dilution

KAO SOAP KK 20.04.79-JA-048835

(06.11.80) C11d-03/20

Builder-free alkaline cleansing compsns. contain pref. 3-95 wt% partly neutralised succinic acid derivs. having formula R-CH(COOX)-CH_2-COOY (I) (where R is satd. or unsatd. 8-18C hydrocarbyl; and X and Y are H, alkali, NH_4 or alkanolamine), provided that they have pH 5.5-8(6-7) on dilution with water to (I)-concn. 0.5 wt%.

Compsns. are used in the kitchen, e.g. for washing dishes, also for washing clothes and as shampoos. Compsns have high foaming power in the presence of oils and fats, and the foam quickly vanishes on rinsing. Compsns do not irritate the skin. 11.4.80 as 013904(19pp200)

RHON D25 41678 Y/24 =GB 1578-930

Polyurethane with hydrophobic and hydrophilic gps. - used as antiredeposition, antisoiling and antistatic agent in detergent compsns.

RHONE-POULENC INDUSTRIES 09.12.75-FR-038233

*A25 +P73 (A97) (12.11.80) *BE-849-185 C08g-18/10 C08l-75/04 C11d-03/37 D06m-15/52*

Prepn. of linear, hydrophilic polyurethane of relative viscosity $\geq$2, comprises reacting 5-70 wt.% of linear hydroxyl-terminated polyester derived from terephthalic acid or diester.

The polyester has hydroxyl number $\leq$120mg. of KOH/g. and an acid number $\leq$3mg. of KOH/g. with 95-30 wt.% of prepolymer with terminal isocyanate gps. It is obtd. by reacting $\geq$1 polyethylene glycol with $\geq$1 diisocyanate. The overall molar ratio NCO/OH is 0.8-1.

The polyurethane is used as anti-redeposition, anti-soiling and antistatic agents. 7.12.76 as 051006 (14pp977).

PROC D25 06705 A/04 =GB 1578-951

Garment finishing compsn. enclosed in a permeable bag - made of synthetic material, for use in automatic washing machines

PROCTER & GAMBLE CO 12.07.76-US-704722

*A92 F06 (12.11.80) *DT2731-080 C11d-17/04 D06b-01/10*

Novel fabric conditioning articles are esp. designed for conditioning articles in an automatic washing machine. They comprise a closed flexible receptacle (I) and an effective amt. of a fabric conditioner compsn. releasable enclosed in it. (I) has $\geq$1 wall which comprises two superimposed layers having a combined air permeability of 200-390 cu. ft. per min. per sq. ft.

Pref. one layer is an elastic open cell foam or an elastic nonwoven material and the other is a non-woven material. 11.7.77 as 029004 (10pp974).

LANK ★ D25 81316 C/46 ★GB 2046-321

Thickener for hypochlorite bleach - comprising hypochlorite soluble salt of phosphated opt. alkoxylated fatty acid alkanol-amide surfactant

LANKRO CHEMICALS LTD 18.04.79-GB-013486

A97 E11 (12.11.80) D06l-03/06

A bleaching compsn. comprises water, alkali metal hypochlorite and a hypochlorite soluble salt of phosphated, opt. alkoxylated, fatty acid alkanolamide surfactant as thickening agent. The compsn. opt. also includes any or all of (i) Cl resistant additional surfactant(s), (ii) 0.5-2 wt.% caustic alkali and (iii) perfume and/or colourant.

The compsn. is useful industrially, e.g. for bleaching fabrics or domestically, e.g. as bleach disinfectant for lavatories, drains, etc. It is viscous and thixotropic, e.g. viscosity at 20°C 10-120 cS, minimising waste by run off and adhering to treated surfaces for long enough for effective utilisation of available Cl. Cl content is stabilised e.g. loss equiv. to $\not>$20 wt.% after 3 months storage at 20°C. No expensive solubilising agents are needed. 18.4.79 as 013486 (9pp091).

MIZA ★ D25 81730 C/46 ★J5 5127-498

High stability aq. zeolite slurry - useful as detergent component

MIZUSAWA KAGAKU KOG 26.03.79-JA-034407

E33 (02.10.80) C11d-03/12

Prodn. of aq. zeolite slurry contg. 35-55wt.% (on anhydrous base) solid content of fine zeolite particles having microscopic grain size $< 1\mu$ and X-ray crystallinity 35-75% and having kinematic viscosity satisfying the formula $\log \eta$ 8.249 logC - 11.45 (C is solid content (wt.%) on anhydrous base in slurry and η is Ford cup viscosity (centistoke) at 20°C of the slurry), is described.

Zeolite is treated with an acid such that the X-ray diffraction peak of plane index [001] disappears practically to obtain activated silicic acid or aluminosilicic acid, the activated silicic or aluminosilicic acid is treated with an alkali hydroxide or a water-soluble alkali polysilicate to obtain an alkali polysilicate or alkali polyaluminosilicate of a $Na_2O:SiO_2$ molar ratio = 1:3:5 to 1:500, the alkali polysilicate or alkali polyaluminosilicate thus obtd. is mixed with an alumina component, an alkali metal component, and water to obtain a homogeneous A-type zeolite type compsn., and then the compsn. thus obtd. is heated to obtain fine zeolite crystals having prim. grain size $< 1\mu$.

Slurry has excellent stability and fluidity and is useful as a component for detergents without the use of surfactants and dispersants. 26.3.79 as 034407. (14pp117)

MIZA ★ D25 81731 C/46 ★J5 5127-499

Aq. zeolite slurry used as detergent builder - by filtering A,X and Y zeolite(s) and adding alumina sol or gel, silica, silica-alumina or their alkalised prod.

MIZUSAWA KAGAKU KOG 26.03.79-JA-034408

E33 (02.10.80) C11d-03/12

Mfr. of a new type zeolite aq. slurry, contg. a solid content (on dry base) of 35-55wt.% and having a kinematic viscosity satisfying the formula $\log \eta < 8.249 \log C - 11.45$ (C is solid content (wt.% on dry base) in the slurry and η is Ford's cup viscosity (centistoke) at 20°C of the slurry), comprises filtering a zeolite, consisting of a combination of A-, X-, and Y-type zeolites and having a CaO exchange capability of $\geq$100mg./g., to obtain a wet zeolite filter cake, and adding 0.5-8wt.% alumina sol or gel, silica, alumina-silica, or an alkalinised prod. of these to the wet zeolite filter cake with a forced shearing agitation.

Method gives a new type zeolite aq. slurry, having excellent stability and excellent fluidity and contg. no foreign matters such as surfactants and dispersants, which is effectively applicable as a component (builder) for detergents. The new type zeolite aq. slurry is easily mfd. at low cost without the necessity for complete operations and expensive chemicals. 26.3.79 as 034408. (15pp117)

KURE ★ D25 81732 C/46 ★J5 5127-500

Low tri:poly:phosphate detergent compsn. - has good performance, economy and is non-polluting

KUREHA CHEM IND KK 26.03.79-JA-035177

A97 E19 (E34) (02.10.80) C11d-03/60

A low-phosphorus detergent compsn. (I) is obtd. by adding as builders $\leq$10wt.% of tripolyphosphate, e.g. sodium tripolyphosphate, etc., 5-50wt.% of an imidobis-sulphate, e.g., trisodium imidobis-sulphate, etc., and 0.05-30wt.%

a 12-18C (un)satd. fatty acid salt, e.g. sodium stearate, dium oleate, sodium palmitate, potassium stearate, etc., a detergent compsn. contg. an anionic surfactant and/or nonionic surfactant.

(I) may contain sodium silicate, sodium carbonate, CMC, auber's salt, sodium percarbonate, sodium perborate, rax, sodium toluene sulphonate, sodium xylene sulphon-e, sodium pyrophosphate, potassium pyrophosphate, dium metaphosphate, etc., as needed. Also, the anionic rfactant used includes sodium alkyl sulphates, sodium kylbenzene sulphonates, long-chain α-sodium olefin sul-onates, sodium alkylpolyether sulphates, etc.

(I) has excellent detergent performance, economy and non-polluting. 26.3.79 as 035177. (4pp117)

OLG D25 29209 C/17 =US 4230-590

etergent and softening compsn. used in washing textiles - esp. by achine, contains anionic surfactant and cationic softener

COLGATE PALMOLIVE CO 11.12.78-US-968532

*A97 E19 (28.10.80) *BE-880-537 +C11d-01/65 C11d-03/37*

ompsn. giving improved softness, detergency, antistatic nd soil antiredeposition properties comprises (by wt.) (a) -40 % water soluble non-soap organic surfactant ≥ 90% of is being anionic; (b) 10-60% water soluble neutral or alk-line builder salt; (c) 2-20% water sol. or dispersible fatty cid soap-cellulose esther mixt. homogenously dispersed the compsn; (d) 2-20% cationic amine softener. The oftener is aliphatic di-(lower) 1-4C alkyl, di-(higher) 14-4C alkyl quatermary ammonium salts and/or heterocyc-c cpds. The wt. ratio of soap to softener is 8-1:1-3, the concn. of anion surfactant being > 1.5 x + 5 where x is e concn. of softener.

Pref. the soap comprises an alkali metal salt, 10-30C tty acid (≥ 50% 10-18C fatty acid) and is esp. an 85:15 llow fatty acid salt:coconut oil mixt.

The detergent softener compsn. does not give ppts. and ves improved softness and detensive effects to fabrics uring a wash cycle. 11.12.78 as 968532 (11pp918)

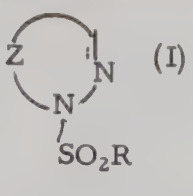
MCC D25 27758 C/16 =US 4230-591

er:oxygen bleach compsn. contg. N sulphonyl:azole activator - orage stable and useful for low temp. bleaching

FMC CORP 10.10.78-US-949836 (30.07.79-US-061574)

*E13 F06 (28.10.80) *EP---9-998 C11d-03/39*

leaching compsn. consists of a peroxygen bleaching cpd.)and a peroxygen activator an N-sulphonylazo of formula



(I)

(I): (where Z completes a pyrazole, pyrrole, triazole or benzotriazole ring opt. substd. with phenyl, 1-10C alkyl, halogen NH_2, CN, NO_2, 1-10C alkoxy and R is 1-10C alkyl).

Pref. (A) is Na perborate tetrahydrate.

Pref. the compsn. also contains a buffering agent to maintain a pH of 6-12 when the compsn. is dissolved in water. Compsn. has increased bleaching capacity and is used for treating soiled and/or stained fabrics. 30.7.79 as 061574 (7pp393)

CHEM- ★ D25 82450 C/46 ★US 4230-592

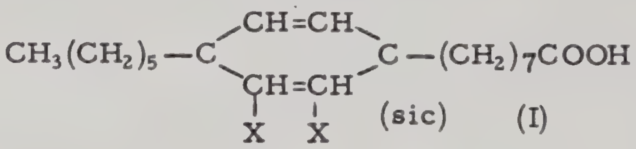
Liq. additive for caustic soda cleaning solns. - contg. dimer acid, alkyl glucoside, fatty alcohol alkoxylate, potassium hydroxide, sodium glucoheptonate etc.

CHEMED CORP 31.05.79-US-044396

(28.10.80) C11d-07/06

Following compsns. are claimed :- (% by wt.) (A) water 6.0-86.95; KOH 1.4-6.9; aminotris(methylene phosphonic acid) 40% active 2.0-10.0, 100% active 0.8-4.0; acids of formula (I) 0.5-8.0; Na glucoheptonate or gluconate 5.0-35.0, Na nitrite 0.5-5.0; linear 12-15C alcohol alkoxylate contg. 8-13 (av. 9) moles ethylene oxide, and 7-30 &av. 15) moles propylene oxide 0.05-5.0; 6-18C alkyl glucosides (70% active) 2.0-16.9, (100% active) 1.4-11.2.

(B) water 27.0-73-75; KOH (45-47% soln) 5.5-12.0; aminotris (methylene phosphonic acid), 40% active 3.75-8.0; (I) 1.5-4.0; Na glucoheptonate 10.0-30.0; $NaNO_2$ 1.0-3.0; linear alcohol alkoxylate 0.5-4.0, alkyl glucoside (45% C_8 and 55% C_{10}), 70% active 4.0-12.0. In (I) where one X is H, the other is COOH.



(I)

Compsns. are liq. additives for caustic soda cleaning solns used e.g. in beverage plants. They provide surfactant, foam control, scale control and good wetting and emulsifying props. 31.5.79 as 044396 (3pp955)

See Also

D21 WP 8002293 D22 CA 1087955 D23 DT 3016111

ABBO 01.03.77 ABBOTT LABORATORIES B04 D16 S03 S05 =CA 1087-983
Purified rubella antigen and prodn. - 65627A/37
ABBO 11.05.77 ABBOTT LABORATORIES B03 D22 E13 =CA 1088-080
Antibacterial (N)-methyl-fortimicin derivs. - 82125A/46
*ABBO 26.09.79 ABBOTT LABORATORIES B02 C02 D22 E13 *US 4230-846
1,5-Fortimicin-B carbamate derivs - 82562C/46
AGEN 28.12.77 AGENCY OF IND SCI TECH A41 D15 E35 G06 (E16) =J8 0040-315
Cyanogen cpd. recovery from waste water - 63933B/35
*AGEN 22.03.79 AGENCY OF IND SCI TECH A97 D15 E31 K05 *J5 5127-143
Adsorbent for uranium recovery e.g. from sea water - 81618C/46
*AGEN 28.03.79 AGENCY OF IND SCI TECH D16 E31 J04 *J5 5127-997
Penta:valent vanadium concn. determn. - 81764C/46
*AGRI= 07.12.76 AGRIC COMPLEX BIOL D15 *SU -726-027
Surface aerator for aq. waste purificn. - 82188C/46
AIRL 03.02.78 AIR LIQUIDE L' A97 D22 =US 4230-478
Deodorant compsn. or plant for animal waste fertilisers - 60144B/33
AIRR 24.01.79 AIRCO INC D12 =US 4230-732
Poultry chilling process - 77653C/44
*ALDR/ 18.04.79 ALDRED F C A96 D22 F04 *WP 8002-300
Prepn. of nonwoven alginate, wound dressing fabric - 82622C/46
ALFA 09.03.77 ALFA-LAVAL AB D17 J01 =CA 1088-030
Multiple cyclone separator - 67371A/38
*ALFA 23.03.79 ALFA-LAVAL AB D13 *GB 2046-072
Apparatus for continuous production of cheese - 81288C/46
AMCY 20.09.76 AMERICAN CYANAMID CO A96 D22 F07 =CA 1087-952
Nonabsorbable, surgical, polymeric sutures - 62691Y/35
AMCY 05.05.77 AMERICAN CYANAMID CO A14 D15 E17 (A97) #GB 1578-901
Freeze-thaw stable emulsion of acrylamide-acrylic acid copolymer - 36068Y/20
AMCY 02.02.78 AMERICAN CYANAMID CO B04 C03 D16 (D13) =DL -143-555
Animal feed supplements for increasing growth rate - 61831B/34
AMHP 03.11.78 AYERST MCKENNA & HA B04 D16 =US 4230-692
Antibiotic Ravidomycin from Streptomyces ravidus NRRL 11300 - 36987C/21
ANDZ 14.05.75 MASCH ANDRITZ AG D15 F07 J01 =DS 2616-517
Dewatering press for fabrics or fibrous materials - 90877X/49
*ANHE 05.01.76 ANHEUSER BUSCH INC D17 *US 4230-802
Enzymatic conversion of glucose to fructose - 82542C/46
ANVR 24.01.79 AGENCE NAT VALORISATION B05 D16 E19 =FR 2447-359
enzymatic prepn. of L-alpha-aminoacid(s) - 60480C/34
AQAC 04.10.71 AQUA CHEM INC D15 =J4 8048-379
Water distillation unit - 23354U/17
AQAC 04.10.71 AQUA CHEM INC D15 =J8 0040-281
Water distillation unit - 23354U/17
ASAE 30.06.76 ASAHI DENKA KOGYO D13 =GB 1578-986
Cocoa butter substitute for chocolate mfr. - 07742A/04
*ASAH 27.03.79 ASAHI CHEMICAL IND KK A97 D13 *J5 5127-952
Pickling solns. contg. regenerated cellulose and seasoning - 81750C/46
ASAO 07.06.76 ASAHI KOGAKU KOGYO D21 =US 4230-455
Tooth and bone prostheses prodn. - 88592Y/50
ASHM/ 22.12.75 ASHMAN A A96 D21 =CA 1087-801
Synthetic implant, esp. artificial tooth or bone - 50667Y/29
ASTR 05.07.65 ASTRA NUTRITION AB C03 D13 (D12) =IT 1046-626
Fat-contng organic material from marine animals neth 66 - 07779G/00
ASTR 08.03.76 ASTRA-EWOS AB B05 C03 D13 =DK 8001-281
Antibacterial compsns. esp. for use as feed additives - 64959Y/37
ATLA 12.02.79 ATLAS AS D13 =US 4230-034
Vegetable cleaning and peeling appts. - 60918C/35

BADI 16.09.74 BASF AG B02 C02 D13 E13 =IT 1046-896
Thiophene-saccharin cpds - 24791X/14
BADI 09.07.76 BASF AG D23 E15 =GB 1578-804
Cyclododecane and cyclododecene cpds. - 06512A/04
BADI 26.03.79 BASF AG B04 D16 =J5 5127-990
Enzymatically active agents immobilisation in silica gel - 73687C/42
*BADI 23.04.79 BASF AG D23 E15 *DT 2916-418
14-Methyl-bi:cyclo-10,3,0-pentadecene-1,2-muscone precursor prepn. - 80997C/46
*BAKI= 01.06.77 BAKING IND RES INST D11 *SU -725-640
Dough divider and bread-mould loader - 82032C/46
*BASH= 01.03.78 BASHKIR PETRO IND A97 D16 E16 H01 *SU -724-705
Agent for suppressing growth of sulphate-reducing bacteria - 81974C/46
*BAXT/ 01.11.78 BAXTER S M D12 *US 4229-858
Boat mountable fish cleaning tray - 82316C/46
BAYL- 27.04.79 BAYLOR UNIV COLLEGE B04 D16 S03 =NL 8000-194
Determn. of gram-positive and gram-negative bacteria - 24041C/14
BEAF 15.02.77 BEATRICE FOODS CO D13 =CA 1087-904
Food colour and flavour carrying particle - 25830B/13
BECT 07.04.75 BECTON DICKINSON CO B04 D16 S03 S05 =DK 8001-216
Stable carriers, esp for immunoadsorbents - 80578X/43
BEEC 28.12.73 BEECHAM GROUP LTD A14 B02 D16 =US 4230-804
Penicillin acylase/methacrylic polymer complex - 46071W/28
BEHW 26.05.72 BEHRINGWERKE AG B04 D16 =J8 0041-209
Distemper/canine hepatitis vaccine - 77904U/51
BEHW 12.02.76 BEHRINGWERKE AG B04 C03 D16 =CA 1087-982
Glycoprotein fractions prodn. from rabies virus - 59354Y/34
*BELI- 22.03.79 BEZIRKSHYGIENEINSPE D22 S05 T06 *DL -143-557
Portable automatic controller for heat sterilisers - 80764C/46
BENA 20.04.79 BENZON A AS B04 D16 =WP 8002-229
Purified human Le form interferon proteins - 79381C/45
*BENC 27.04.79 BENCKISER-KNAPSACK D13 *DT 2917-086
Skimmed milk powder and butter fat-contg. food - 81052C/46
BENN/ 23.03.79 BENNEFALL R B D15 =SW 7902-652
Injecting gas esp. carbon di:oxide into water - 70008C/40
*BENN/ 04.05.79 BENNECKE E J D15 *US 4230-577
Boiler feed water conditioning tank - 82441C/46
BENP 13.04.79 MCLAUGHLIN GORMLEY B07 C03 D21 G02 (D25) =WP 8002-293
Dispensable water-in-air suspensions - 79341C/45
*BENY/ 02.09.77 BENYO J D22 *HU T018-918
Biological surgical dressing, partic. for burns - C/46
*BERN/ 13.06.79 BERNHARDT G C03 D13 *DL -143-724
Dry forage prepn. - 80810C/46
BIOT- 09.02.79 BIOTUBE MARKET CO D15 =BR 8000-802
Rotary body for biological sewage purification - 60858C/35
BIOT- 09.02.79 BIOTUBE MARKETING C D15 =DK 8000-561
Rotary body for biological sewage purification - 60858C/35
BIOT- 22.02.79 BIOTECHNOLOGIE AG A11 D16 H01 J01 (A97 H03) =US 4230-801
Extracellular microbial lipo-hetero polysaccharide derivs. - 71998C/41
BIOT- 21.03.79 GES BIOTECH FORSCH D15 E19 H03 =DK 7904-776
Treatment of marine oil spills - 75420C/43
BIOT- 21.03.79 GES BIOTECH FORSCH D15 E19 H03 =NO 7903-398
Treatment of marine oil spills - 75420C/43
*BLIE/ 02.02.79 BLIEMEISTER G C03 D13 *DL -143-853
Chaff prodn. for cattle fodder - 80856C/46
*BODE/ 20.04.79 BODENRADER B J C04 D15 *WP 8002-282
Treating manure with Lactobacillus strain and carbohydrate - 82610C/46
BOEF 24.03.72 BOEHRINGER MANNHEIM GMBH D17 E17 =DS 2214-442
Converting glucose to gluconic acid - 62720U/42
BOEF 22.03.79 BOEHRINGER MANNHEIM GMBH B04 D16 =DK 8001-203
Cholesterol esterase enzyme activation in ionic soln. - 71667C/41
BOEF 22.03.79 BOEHRINGER MANNHEIM GMBH B04 D16 =J5 5127-987
Cholesterol esterase enzyme activation in ionic soln. - 71667C/41
BOEH 12.08.76 BOEHRINGER INGELHEIM B04 D16 =CA 1088-009
Immobilised enzyme on hardened porous protein support - 12290A/07
BOEH 22.03.79 C H BOEHRINGER SOHN D16 (D17) =DK 8001-240
Immobilised glucose oxidase and catalase prod. - 71712C/41
*BOHM/ 23.05.79 BOHM H D16 J04 S03 *DL -143-792
Automatic control of environmental factors in water or air - 80843C/46
BOLI 23.03.79 BOLIDEN AB D15 F09 =NO 8000-818
Solid, non-dusting flocculating agent - 77574C/44
BOLI 23.03.79 BOLIDEN AB D15 F09 =SW 7902-651
Solid, non-dusting flocculating agent - 77574C/44
*BORR/ 29.05.79 BORRIS R D16 *DL -144-074
Fungus alpha-amylase fermentation enzyme prepn. - 80941C/46
*BRAS- 04.07.79 BRASSERIES KRONENBO D16 *BE -884-168
Building precoat of kieselguhr to filter fermented beer - 80739C/46
BRAU- 28.03.79 BRAUN K O KG D22 =NO 8000-891
Self-adhesive bandage not adhering to skin, hair, clothes etc. - 56933C/33
BRAU- 28.03.79 BRAUN K O KG D22 =SW 8001-662
Self-adhesive bandage not adhering to skin, hair, clothes etc. - 56933C/33
BRHA 24.01.75 BRITISH ALUMINIUM D21 E33 =CA 1088-040
Milled aluminium oxide trihydrate for toothpaste - 60181X/32
BROD/ 27.03.79 BRODELIUS P A97 B04 D16 E19 (B05) =SW 7900-826
Immobilised enzyme conversion of alpha-aminoacid to alpha-keto:acid - 75296C/42
BRPE 26.09.73 BRITISH PETROLEUM LTD D13 H04 (D16) =IT 1046-793
Nucleic acids content of protein-contg. materials reduced - 24607W/15
*BRSO- 22.03.79 BRITISH SOYA PROD L D13 *GB 2046-076
soya bean food flavouring additive - 81290C/46
*BUNA 18.05.79 CHEM WERK BUNA VEB D15 E36 J03 X25 (J01) *DL -143-896
Purifying waste water contg. cyanide and chloride ions - 80874C/46

CANA 21.03.79 CANADIAN PAT & DEV LTD B02 D16 =J5 5127-994
Codeine prodn. from opium poppy - 77671C/44
CANP 19.07.78 CANADA PACKERS LTD D23 (D13) =US 4230-630
Continuous bleaching of oils and fats esp. edible material - 84203B/47
*CARA/ 18.01.74 CARATTIMI A D12 *IT 1046-715
Hams and salamis washing appts. - C/46
CARA/ 21.10.75 CARATTINI A D12 =IT 1046-868
Machine for sewing deboned ham with helical needle - 52643Y/30
*CARN- 13.04.79 CARNATION CO D13 *GB 2046-070
Preparation of frozen par-fried chips - 81287C/46
*CASS/ 14.05.79 CASSEBAUM H B02 C03 D13 E13 *DL -143-610
Saccharin purificn. by removal of sulphonamide impurities - 80778C/46
*CBLA= 27.11.78 C BLACK ZONE AGRIC C03 D13 F09 *SU -725-645
Prodn. of stable nitrogen-enriched sawdust - 82037C/46

CELA 27.11.70 CELANESE CORP A32 D22 F08 (A17 A92 A96) =DS 2158-391
Reinforced microporous films - 39592T/25
CELA 13.03.78 CELANESE CORP A88 D18 (A11 A32) =DL -143-882
Cellulose acetate foam cigarette filter rod - 68589B/38
CESK 24.07.68 CESKOSLOVENSKA AKAD A12 D22 F02 =IT 1046-781
Surgical threads coated with a hydrogel - 07112R/05
*CESK 26.01.78 CESKOSLOVENSKA AKAD A91 B04 D16 J01 *SU -726-117
Prodn. of carboxyl cationite for purifying protein cpds. - 82264C/46
CHAM/ 17.02.78 CHAMBE M C03 D13 (C04 D15) =US 4230-451
Heat sterilising plant for organic waste using hot air - 65802B/36
CHAS/ 04.07.74 CHASTAN B L D15 =IT 1046-738
Cleaning the surfaces or stretches of polluted water - 07809X/05
CHEM- 17.11.76 CHEMED CORP A97 D15 (A13 A14) =CA 1087-957
Boiler scale inhibition using soluble polymers - 68573Y/38
CHEM- 06.03.79 CHEMED CORP A97 D25 =GB 2046-295
Slurry form laundry detergent - 58620C/33
*CHEM- 31.05.79 CHEMED CORP D25 *US 4230-592
Liq. additive for caustic soda cleaning solns. - 82450C/46
CHIM- 27.01.78 CHIMICASA GMBH B05 C03 D16 (D13) =DL -143-924
Terpene(s) steam-distilled from aromatic plants - 40655B/22
CHIN 21.02.79 CHINOIN GYOGYSZER A60 C03 D13 E13 (D21) =BR 8001-025
2,2-Di:methyl-1,2-di:hydro-quinoline-4-yl methyl sulphonic acid - 48199C/28
CHIO/ 30.07.75 CHIOLLE A A88 D15 J01 (A23) =US 4230-583
Supported anisotropic membrane for reverse osmosis - 09298Y/06
*CHOY/ 01.05.79 CHOY S D21 *US 4230-689
Hair grooming compsn. - 82494C/46
CHUS 23.03.79 CHUGAI PHARMACEUTICAL KK B07 D13 =J5 5127-448
Gelatin compsns. contg. caramel - 71863C/41
*CHUS- 27.03.79 CHUSHO KIGYO SHINKO A97 D15 J04 *J5 5128-147
Coulometric titration method for determining total hardness of water - 81781C/46
CIBA 14.09.73 CIBA GEIGY AG A97 D12 (A14) =DK 7905-528
Disinfection and sterilisation of seafood - 20955W/13
CIBA 26.06.78 CIBA GEIGY CORP C03 D22 E14 F06 =US 4230-722
Insecticidal cyclopropane carboxylic acid thiol ester derivs. - 03790C/03
CIBA 16.02.79 CIBA GEIGY AG B02 C02 D22 =DK 8000-669
7-Heterocyclyl-ureido:acetamido-cephalosporin derivs. - 64694C/37
*CIVI= 28.07.78 CIVIL ENG RES D15 *SU -724-453
High capacity aero-tanks sewage treatment control appts. - 81962C/46
CJBD- 22.02.74 CJB DEV LTD D14 E36 J01 =IT 1046-994
Carbon dioxide removed from humid air - 59147W/36
CLEV- 08.12.77 CLEVEPAK CORP D15 #CA 1088-228
Aeration chamber for mixing gas and waste water - 47042B/25
CLEV- 08.12.77 CLEVEPAK CORP D15 #CA 1088-229
Aeration of waste water - 38814B/20
*COFR- 24.07.78 COF REFRIGERATORS N D14 X25 *GB 2046-073
Milk pasteurisation appts. - 81289C/46
COLG 11.12.78 COLGATE PALMOLIVE CO A97 D25 E19 =US 4230-590
Detergent and softening compsn. used in washing textiles - 29209C/17
COLG 06.04.79 COLGATE PALMOLIVE CO D25 =GB 2046-291
Detergent compsns. contg. zeolite and alkylbenzene sulphonate - 46266C/27
*COLG 05.07.79 COLGATE PALMOLIVE CO A96 D21 *BE -884-181
High viscosity dentifrice compsn. contains anionic polyelectrolyte - 80741C/46
*COMM- 29.06.77 COMMONWORK ENTERP D16 *US 4230-580
Anaerobic slurry digester with capping - 82444C/46
COMM- 03.04.79 COMMODITIES TRADING D13 =GB 2046-074
Continuously alkalising and pasteurising cocoa beans - 77304C/44
*COMM= 24.08.77 COMML MECH ENG RES D11 *SU -725-867
Sandwich-making machine - 82168C/46
COUE 26.04.78 COULTER ELECTRONICS INC B04 D16 J04 S03 (S05) =US 4230-031
Testing chamber for bio-hazardous substance falling as droplets - 81224B/45
*COUR 18.04.79 COURTAULDS LTD A96 D22 F04 *WP 8002-300
Prepn. of nonwoven alginate, wound dressing fabric - 82622C/46
CRDC 29.09.75 CORDIS CORP B04 D16 S03 S05 =GB 1571-196
Hepatis-associated antigen detection - 26491Y/15
CRDC 29.09.75 CORDIS CORP B04 D16 S03 S05 =GB 1571-197
Hepatis-associated antigen detection - 26491Y/15
CRDC 29.09.75 CORDIS CORP B04 D16 S03 S05 =GB 1571-198
Hepatis-associated antigen detection - 26491Y/15
CROA/ 17.02.78 CROASDELL D F D12 =DS 2905-998
Separating the cheek muscles of a pigs head - 63417B/35

*DADA/ 05.03.79 DADAK V D16 *CS 7901-458
Farm animals liquid wastes processing and utilisation - C/46
*DADD/ 22.01.79 DADD R C D15 *US 4230-571
Domestic water purificn. - 82436C/46
DAII 23.10.69 DAI-ICHI KOGYO SEIY D17 E13 (D13) =DS 2051-766
Fatty acid saccharose ester synthesis - 30061S/17
DAII 23.05.77 DAIICHI KOGYO SEIYA A97 D22 E19 F09 =J8 0040-716
Softening and anti-curling agent for paper - 10777B/06
*DAIL 23.03.79 DAICEL KK C03 D13 *J5 5127-960
Prevention of secondary fermentation of ensilaged feed - 81753C/46
DAIL 18.04.79 DAICEL KK D16 F09 J01 #DT 2915-677
Filter aid for use in filtering alcoholic drinks - 46290B/25
DAMO- 12.04.76 DAMOND ENTER ELEC S D15 T06 =GB 1579-177
Water heater with precise thermostatic control - 57572Y/33
DAMO- 28.03.79 DAMON CORP A96 B04 D22 =GB 2046-209
Encapsulating living tissue, protein etc. in membranes - 73451C/42
DAMO- 28.03.79 DAMON CORP A96 B04 D22 =NO 8000-901
Encapsulating living tissue, protein etc. in membranes - 73451C/42
DAMO- 28.03.79 DAMON CORP A96 B04 D22 =SW 8002-357
Encapsulating living tissue, protein etc. in membranes - 73451C/42
*DANI/ 05.01.79 DANISCH D D15 E14 *DL -143-894
Phenol removal from water - 80872C/46
DARX 13.12.78 GRACE GMBH D21 E36 =DS 2853-647
Mfg. silica gel used partic. in tooth paste - 29226C/17
DAYL- 10.09.70 DAYLIN LABS INC D13 #IT 1046-783
Fruit drinks - 21590T/14
*DEAK 18.05.78 AKAD WISSENSCHAFT DDR D17 (D13) *DL -143-928
Water-soluble carbohydrate prodn. from vegetable matter - 80892C/46
*DEAK 20.06.78 AKAD WISSENSCHAFT DDR B04 D16 *DL -143-925
Enzyme esp. alpha-L-arabino:furanosidase microbiological prodn. - 80890C/46
DEAK 25.04.79 AKAD WISSENSCHAFT DDR B04 D16 S03 =DT 3010-119
Enzyme electrodes for NAD or NADP determn. - 73543C/42
*DEAK 15.05.79 AKAD WISSENSCHAFT DDR D12 *DL -143-556
Chicken flavour concentrates prodn. - 80763C/46
*DEAK 31.05.79 AKAD WISSENSCHAFT DDR D25 E11 (E34) *DL -144-073
Stabilising peroxide-contg. solns. - 80940C/46
*DEAK 01.06.79 AKAD WISSENSCHAFT DDR B04 C03 D16 *DL -143-794
Double-stranded C-dNA prodn. from M-RNA reverse transcription prods. - 80845C/46
*DECA/ 07.10.74 DECARLI A D13 X27 *IT 1046-822
Automatic, electric coffee maker - C/46
DECI- 23.03.79 DEC INT INC D13 =DK 8001-245
Cheese vat salt distribution - 71812C/41
DECI- 23.03.79 DEC INT INC D13 =GB 2046-071
Cheese vat salt distribution - 71812C/41
DECI- 23.03.79 DEC INT INC D13 =SW 8001-967
Cheese vat salt distribution - 71812C/41
DEGM 06.11.75 DEGREMONT SA D15 S02 S03 T06 =CA 1087-995
Sludge purging control for waste water purificn. plant - 18217Y/11
DEGS 17.12.76 DEUTSCHE GOLD & SILBER A35 D15 E14 J01 (E37) =CA 1088-231
Purifying effluents contg. phenol and/or formaldehyde - 42326A/24
DEGS 17.12.76 DEUTSCHE GOLD & SILBER A35 D15 E14 J01 (E37) =GB 1571-261
Purifying effluents contg. phenol and/or formaldehyde - 42326A/24
DEGS 27.01.77 DEUTSCHE GOLD & SILBER A21 D14 E14 H09 (A41 E17) =GB 1571-262
Treating waste water contg. phenol cpds. and opt. formaldehyde - 56790A/32
DEGS 06.03.79 DEUTSCHE GOLD & SILBER B05 C03 D13 =J5 5127-359
D-2-hydroxy-4-methylthio-butyric acid derivs. - 65963C/38
*DEGS 02.05.79 DEGUSSA AG D15 E36 J03 S03 *BE -883-046
Measuring concn. of dissolved cpds. - 80714C/46
DEKO- 07.01.77 DEUT KOMMUNAL ANL M D15 E36 J09 =DS 2800-030
Pyrolysing wet organic residues, esp. drain sludge - 49708A/28
*DELS/ 23.01.79 DELSER GONZALEX C A97 D12 *FR 2447-153
Stabilising and preserving anchovies stuffing in olives - 81233C/46
DENT- 08.03.79 ET IVOCLAR DENTAIRE D21 L02 M22 =J5 5127-307
Bonding dental metal to porcelain or other metal parts - 71919C/41
DERV= 13.03.79 DERVENEV CHEM WKS D22 E21 F06 =GB 2046-288
Reactive azo dyes with antimicrobial activity - 70047C/40
*DESA- 10.01.79 ESALINATION SYST A88 D15 *US 4230-579
Brine flow control for reverse osmosis system - 82443C/46
*DICK- 24.04.79 FR DICK GMBH D12 *DT 2916-432
Sausage filling machine - 80998C/46
*DNCH= 17.10.77 DNEPR CHEM-TECH INS D15 E36 *SU -726-030
Purificn. of waste water contg. dyes - 82191C/46
*DOLO- 28.04.80 DOLOKEMIA VEGYIPARI C03 D13 *BE -883-011
Non-hygroscopic easily grindable cupric sulphate mono:hydrate - 80713C/46
*DOME= 17.08.78 DOMESTIC ELEC MACH D13 *SU -725-899
Fruit expressing auger press - 82178C/46
DONA/ 05.06.72 DONATI M D11 =IT 1046-628
Sterilizing flour prods - 19955V/11
DOUW 22.02.79 DOUWE EGBERTS KON D13 J01 =BR 8000-988
Freeze concentration by counter current multistage treatment - 64602C/37
DOWO 01.02.79 DOW CORNING LTD A96 D21 (A26 D22) =J5 5127-314
Antiperspirant or deodorant compsn. - 59058C/34
DREW 25.04.79 DREW CHEMICAL CORP A97 D15 E13 M14 (A14) =DT 3015-500
Corrosion inhibiting compsn. for aq. systems - 64217C/37
DREW 25.04.79 DREW CHEMICAL CORP A97 D15 E13 M14 (A14) =NL 8002-394
Corrosion inhibiting compsn. for aq. systems - 64217C/37

*DUNG- 25.05.79 INST DUNGUNGSFORSCH D15 *DL -143-895
Floating sludge layer prevention - 80873C/46
DUPO 28.03.79 DU PONT DE NEMOURS CO A41 D15 E16 =GB 2046-237
Redn. of 1,4-di:chloro-2-butene levels in aq. wastes - 69427C/39

EAST 23.08.76 EASTMAN KODAK CO B04 D16 J04 S03 (S05) =GB 1579-040
Ascorbic acid determn. e.g. in body fluids - 18065A/10
ERAP 18.06.76 SOC NAT ELF AQUITAI B05 C03 D21 =GB 1578-977
Antiseborrhoeic hydrocarbylthio-ethylamine salts - 75942Y/43
ESSO 25.02.71 ESSO RES & ENG CO D15 H03 J01 =J8 0040-283
Dispersed phase removal - 22567T/14

*FABI/ 16.03.79 FABIAN J D16 *CS 7901-759
Baking yeasts prodn. - C/46
FALL/ 19.11.76 FALLIS A G B01 D13 E17 =GB 1571-257
Isolation of cholesterol from egg powder - 38812A/22
FARB 24.03.73 BAYER AG B05 D23 E15 =J8 0041-216
Continuous prodn. of dl-menthol - 69737V/40
FARB 31.07.76 BAYER AG D15 J02 (D16) =GB 1579-073
Injector nozzles with deflectors for gas-liquid mixing - 08350A/05
FARB 09.11.76 BAYER AG A96 D22 (A25) =GB 1578-895
Orthopaedic medical or veterinary dressing - 35142A/20
FARB 17.01.78 BAYER AG A82 D18 E37 F08 =US 4230-812
Pigment preparations for (imitation) leather dressings - 54767B/30
FARB 27.04.78 BAYER AG D15 E14 =US 4230-567
Purifying waste waters contg. nitro-hydroxy aromatic cpds. - 81028B/45
FARB 15.02.79 BAYER AG A41 C04 D15 E35 (E13 E17) =J5 5127-186
Ammonium sulphate contg. waste water treatment - 64527C/37
FARB 22.03.79 BAYER AG C03 D22 E17 =DK 8001-248
Microbicidal agents for use as disinfectants - 71715C/41
FARB 22.03.79 BAYER AG C03 D22 E17 =NO 8000-819
Microbicidal agents for use as disinfectants - 71715C/41
*FARB 27.04.79 BAYER AG A14 B04 C03 D22 (D21) *DT 2917-272
Solvent-free polymerisation of unsatd. carboxylic acid - 81062C/46
FARB 27.04.79 BAYER AG B05 D22 E14 (D13 D21) =DT 2917-273
Alkali metal salts of hydroxy-benzoic acid ester(s) - 27632C/16
FARH 10.01.70 FARBWERKE HOECHST A B03 D13 E13 =IT 1046-784
3,4-dihydro-1,2,3-oxathiazin-4-ones - 49657S/30
FARH 14.04.73 FARBWERKE HOECHST A C03 D22 E11 =IT 1046-643
Animal disinfectant for coccidic bacteria - 75796V/44
FARH 01.06.73 FARBWERKE HOECHST A B03 D13 E13 =IT 1046-790
3,4-Dihydro-1,2,3-oxa-thiazin-4-ones prepn - 88133V/51
FARH 24.03.75 HOECHST AG A97 D12 (A11 A14) =CA 1087-908
Regenerated cellulose casings for meat products - 75687X/41
*FARH 00.00.77 HOECHST AG C03 D13 *DT 2915-762
Alkaloid and lipoid cpd. extn. from ground lupin - 80976C/46
FARH 16.05.77 SOC FRAN HOECHST A97 D15 (A14) =GB 1579-007
Powdered cationic polyelectrolyte cpds. for flocculating urban sludge - 82148A/46
FARH 02.11.77 HOECHST AG A14 D21 G03 (A81 A96) =US 4230-643
Preparing vinyl ester-crotonic acid copolymer - 37255B/20
FARH 19.03.79 HOECHST AG D13 E36 =DK 8001-169
Phosphoric acid purificn. from organic impurities - 71684C/41
FARH 24.03.79 HOECHST AG D25 E35 =J5 5126-511
Ammonium sulphamate and nitrilo-tri:sulphonate prodn. - 71955C/41
FARH 19.04.79 HOECHST AG C03 D13 =DT 2915-734
Removal of undesirable components from animal protein - 79256C/45
*FARH 23.04.79 HOECHST AG C03 D22 E16 (C01 E11) *DT 2916-318
Aq. quat. ammonium disinfectant solns. - 80987C/46
*FARM 27.04.79 FARMITAL ERBA C B03 D16 *DT 3012-665
Antitumour and antibacterial anthracycline glycoside antibiotic - 81122C/46
FARM- 28.03.79 FARMATIS SPA D22 E14 #GB 2046-243
Antibacterial 6-iso-bornyl-3,4-xylenol prepn. - 84723B/47
*FERN/ 03.03.77 FERNANDOPULLE P D D16 X25 *US 4230-531
Solar still for brine - 82411C/46
FINL/ 24.01.79 FINLEY W T D15 #FR 2447-143
Elevating nutrient-rich ocean water from aphotic to photic zone - 25900B/13
*FIRM 27.04.79 FIRMENICH SA D23 E13 (D13 D21 D25) *DT 3016-111
Perfume and aromatic tri:cyclic lactone cpds. - 81214C/46
FISO 16.06.76 FISONS LTD A11 D17 (A89 A91) =CA 1088-056
Separating liquid dextran mixt. into two fractions - 02523A/02
FMCC 30.07.79 FMC CORP D25 E13 F06 =US 4230-591
Per:oxygen bleach compsn. contg. N sulphonyl:azole activator - 27758C/16
*FREE/ 09.09.77 FREEBAIRN H T A97 D13 *CA 1087-913
Treatment of bananas with oils - 80753C/46
FRIE- 03.11.75 FRIEDRICHSFELD GMBH D21 =DS 2549-114
Ceramic dental implant - 32984Y/19
FRIG- 22.02.79 FRIGOMAT SAS CIPELL D13 =BR 8001-075
Ice-cream mixing appts. - 66376C/38
FRRR 17.08.76 FERRERO P & CIA SPA D11 =GB 1571-234
Baba type fancy cake - 90091Y/51
FRYL- 15.02.79 FRY LINER ENTERPRIS D14 J01 =GB 2046-085
Filter for removing impurities from liquids partic. cooking oil - 41515C/24
*FUJI/ 28.03.79 FUJII T D13 *J5 5127-962
Citrus fruit jam prepn. - 81754C/46
FUKA/ 26.01.73 FUKAZAWA Y D16 E15 =J8 0040-239
Novel compd. FX-100 - 13405W/08

*GAGL- 24.11.76 GAGLIARDI BROS INC D12 *US 4229-859
Formation of ground meat patties - 82317C/46
GAUT/ 20.04.79 GAUTHIER R H D11 =WP 8002-224
Baking conveyor tunnel for browning pre-baked loaves of bread - 62318C/36
GEAA- 25.09.76 GEA AHLBORN GMBH D14 =DS 2643-273
Double seat valve - 25507A/14
*GEBH/ 23.05.79 GEBHARDT E D13 *DL -143-723
Soft sugar sweets prodn. - 80809C/46
GENO 11.09.69 GENERAL FOODS CORP D13 E13 =NL 8003-114
Improvements in the flavour of foodstuffs - 20147S/11
GESL 12.05.77 KERNFORSCHUNGS KARLSRUHE D15 =US 4230-565
Purifying phosphate- contg. waste water - 84285A/47
*GESN/ 24.01.79 GESNOUIN A M L D11 *FR 2447-147
Bread finger sippets for dipping in softly boiled egg - 81228C/46
*GILL 12.01.76 GILLETTE CO D22 E17 (D21 D25 E37) *CA 1087-955
Cleansing-sanitising compsns. - 80754C/46
*GOHM/ 15.05.79 GOHMANN P D15 E32 J01 *DL -143-897
Mercury-contg. waste water purificn. - 80875C/46
*GOLD/ 17.04.79 GOLDSCHMIDT M R D17 *BR 7902-362
Sugar cane syrup diffuser-extractor - C/46
GRAC 10.06.75 GRACE W R CO A96 B04 D16 =CA 1088-008
Immobilized biological material - 96238X/52
*GRFJ 02.09.76 GRIFFITH LABS INC A97 B07 C03 D23 (D13) *US 4230-687
Encapsulation of active agent in homogeneous natural polymer matrix - 82493C/46
GULO 27.04.79 GULF OIL CORP D16 (D17) =DT 2943-684
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
GULO 27.04.79 GULF OIL CORP D16 (D17) =NL 7908-082
Reuse of endoglucanase and cellobiohydrolase enzymes - 67666C/38
*GYOG 26.09.78 GYOGYSZERKUTATO INT B02 D21 *HU T018-951
1,6-Bis-(5-(4-chlorophenyl)-biguanido)-hexane disaccharinate - C/46

*HAHG 24.04.79 HAHN DR C KG D22 *DT 2916-564
Sanitary tampon blister package - 81006C/46
*HALL/ 24.04.79 HALLBERG R O D15 M14 (M25) *WP 8002-281
PPTN. of heavy metals from waste waters - 82609C/46
HAMA/ 24.01.79 HAMAS R S A96 D22 =FR 2447-183
Artificial breast - 55515C/32
*HANS- 25.04.79 CHR HANSEN'S LAB AS D13 (D16) *WP 8002-225
De:stabilising proteolytic activity of milk clotting enzymes - 82587C/46
*HANS/ 25.04.77 HANSSEN M D13 *GB 1571-251
Shaped bran-dried fruit food compsns. - 81271C/46
HAYA/ 28.03.74 HAYASHI T D11 =DS 2501-446
Appts for rolling out dough - 69142W/42
*HEAT= 02.10.78 HEAT ENG RES D15 T06 *SU -724-450
Water purifying filter end of work cycle indicator - 81961C/46
HEBE- 31.01.69 HEBENSTREIT GMBH D11 =DS 1967-237
Waffle plates and system for providing a - 59597R/34
*HEIN/ 23.04.79 HEINLEIN K H D25 *DT 2916-416
Powdered detergent compsn. forming acid wash liq. - 80995C/46
HENK 07.03.79 HENKEL KG AUF AKTIEN B01 D16 =J5 5127-991
17C-steroid-alpha-propionic acid cpds. prepn. - 68078C/39
HENK 20.04.79 HENKEL KG AUF AKTIEN D23 E17 =DT 2915-948
Hydrotrope for solubilising perfume oils in ionic solns. - 79254C/45
*HENK 25.04.79 HENKEL KG AUF AKTIEN A97 D25 E17 (E13) *DT 2916-656
Optical brightener-free textile detergent compsn. - 81017C/46
*HIEJ 23.03.79 HITACHI PLANT ENG CONST D15 *J5 5127-111
Appts. for filtering waste waters - 81591C/46
*HIEJ 26.03.79 HITACHI PLANT ENG CONST D15 *J5 5127-112
Appts. for filtering waste waters - 81592C/46
HITA 19.05.75 HITACHI KK D16 E17 (E36) =J8 0041-159
Anaerobic processing of biochemical waste - 89168X/48
HITA 04.07.75 HITACHI KK A35 D15 =J8 0041-160
Anaerobic digestion of organic waste liquor - 15294Y/09
*HITA 22.03.79 HITACHI KK D15 *J5 5127-119
Operating several filter tanks in water purificn. plant - 81598C/46
*HITA 18.04.79 HITACHI KK D15 J03 X25 *DT 3014-839
Preventing deposition on electrodialysis ion exchanger membranes - 81149C/46
*HITB 22.03.79 HITACHI CHEMICAL KK D15 E36 J01 *J5 5126-527
Device for regenerating active carbon powder - 81508C/46
*HITG 18.04.79 BABCOCK HITAC HI KC D15 J03 X25 *DT 3014-839
Preventing deposition on electrodialysis ion exchanger membranes - 81149C/46

HITT 02.05.76 HITACHI CONSTRUCT MACH D15 =J5 2134-254
Sludge separator - 81921C/46
*HITT 02.05.76 HITACHI CONSTRUCT MACH D15 *J8 0041-126
Sludge separator - 81921C/46
HOFF 21.01.66 HOFFMANN-LA ROCHE AG B05 C03 D13 E24 =IT 1046-779
Polyene aldehydes and their use as colouring agents - 27790F/00
HOLK 17.07.74 HOLSTEIN & KAPPERT MASC D11 =IT 1046-886
Washing device for projecting a liq. - 81470W/50
HOLS/ 16.06.76 HOLSTEIN A D16 =DS 2627-016
Distilling mash neutralisation - 02306A/02
HONS 23.02.79 YAKULT HONSHA KK B04 D13 (D16) =BR 8001-029
Food and drink contg. bifido-bacteria, for bottle fed babies - 62727C/36
HONS 27.02.79 YAKULT HONSHA KK B04 D16 =DT 3007-412
Whole-cell antitumour agent - 65356C/37
HOOK 27.12.78 HOOKER CHEM & PLAS CORP D15 H09 =NL 7920-195
Solid fuel prodn. from waste-water sludge - 49829C/29
*HOPP/ 25.05.79 HOPPE H D15 H01 J01 *DL -143-758
Highly swellable clay prodn. - 80824C/46
HORS/ 05.01.74 HORSTMANN G D22 =IT 1046-742
Sterilisation of fluids and gases by ultraviolet radiation - 47896W/29
HOTI/ 24.06.76 HOTIMSKY E R L D12 =GB 1578-979
Fixing radial blades on rotary shaft of food chopping machine - 75936Y/43
HOWM- 12.04.76 HOWMEDICA INC A96 B03 D22 F01 =GB 1571-108
Antibacterially active polyfilament surgical suture - 76152Y/43
*HRAD/ 23.04.79 HRADIL J D16 (D17) *CS 7902-803
Continuous saccharose immersion - C/46
*HUBE 03.03.78 HUBER J M CORP A97 D15 (A17) *US 4230-593
Water resistant aluminosilicate water-softening beads - 82451C/46
*HVIZ/ 22.02.79 HVIZDAL Z D16 J01 *CS 7901-177
Flotation appts. - C/46
*HYDR= 16.03.79 HYDROLYSIS IND D16 *DL -143-923
Microorganism growth container - 80889C/46

ICIL 24.04.73 IMPERIAL CHEM INDS LTD A96 D21 (A25) =IT 1046-789
Dental filling polyurethane fluid compsn. - 77544V/45
ICIL 14.05.76 IMPERIAL CHEM INDS LTD D15 =US 4230-563
Deep shaft biological purificn. of waste water - 79402Y/45
ICIL 05.01.79 IMPERIAL CHEM INDS LTD A14 D21 E11 (A28 A96 E36) =DK 8000-046
Dispersion of siliceous particles in organic medium - 53808C/31
ICIL 09.03.79 IMPERIAL CHEM INDS LTD D15 E14 =J5 5127-196
Biological opt. halogen-contg. cyclic organic cpd. degradation - 73819C/42
*IIZU/ 26.03.79 IIZUKA C C03 D16 *J5 5127-306
Plant virus disease treating agent - 81626C/46
INFL 22.12.76 INT FLAVORS & FRAGR INC D13 E13 =DS 2753-971
Augmenting or enhancing aroma or taste of foodstuff - 01929A/01
*INMA- 11.04.79 IND MAQ AGRIC D14 *BR 7902-276
Machine for treating potatoes and oranges - C/46
INMR 29.07.75 INST MERIEUX A96 B04 D16 J01 (A11) =CA 1088-007
Cationic material for reversibly fixing proteins - 09303Y/06
INOZ 20.09.73 INOUE JAPAX RES INC D15 J03 =J5 0056-376
Soluble electrode for use in waste water treatment - 81883C/46
*INOZ 20.09.73 INOUE JAPAX RES INC D15 J03 *J8 0040-317
Soluble electrode for use in waste water treatment - 81883C/46
INRG 18.07.69 INST NAT RECH AGRON A14 D13 (A15 A97) =DS 2065-974
Milk and milk product treatment in cheese- - 04125S/02
*INSM 26.01.78 MACROMOLECULAR CPDS INST A91 B04 D16 J01 *SU -726-117
Prodn. of carboxyl cationite for purifying protein cpds. - 82264C/46
INTE- 27.05.77 INTEROX CHEM LTD D15 E16 (E36) =GB 1571-204
Disinfecting water esp. domestic and drinking water - 86113A/48
INTE- 04.01.79 INTERCANE SYST D13 =US 4230-733
Vegetable juice extractor - 51931C/30
*IRWI/ 07.02.77 IRWIN D C D12 (D18) *US 4229-860
Hide pulling station with winding drum - 82318C/46
*ISHI/ 22.03.79 ISHIKAWA T C03 D13 *J5 5127-958
Animal feed additive comprises a clay - 81752C/46

*JADR/ 18.01.79 JADRNY J D15 H07 *CS 7900-416
Two/phase detoxification of waste oil emulsions - C/46
*JAHN/ 31.05.79 JAHN K D12 *DL -144-001
Frozen fish fillet cubes cutting machine - 80912C/46
JAPG 26.03.79 NIPPON ZEON KK D21 E15 =J5 5127-316
2-Cyclopentyl-cyclopentanone - 72038C/41
JENT/ 09.11.77 JENTSCH H G D13 #CA 1087-907
Packed milk storage time and quality increase - 81383Y/46
*JETI- 09.04.79 JET INC D15 *US 4230-578
Sewage collecting sump. with level sensors - 82442C/46
JOBS- 14.03.77 JOBST INST INC D22 F07 #GB 1578-941
Inflatable emergency antishock trousers - 57224Y/32

KALI 10.06.77 KALI-CHEMIE AG B04 D16 =US 4230-803
Water-insoluble immobilised enzyme prod. prepn. - 63596A/36
*KAMA/ 20.09.78 KAMATARI E D22 *FR 2439-587
Surgical, partic. self adhesive dressing for non white patients - 81227C/46
KANE- 20.04.77 KANESA MISO KK D13 =CA 1087-912
Granulated bean paste mfr. - 80436A/45
*KANE- 22.03.79 KANEBO SHOKUHIN KK D13 *J5 5127-955
Foamable chewing gum - 81751C/46
KANK- 19.12.77 KANKYO GIJUTSU KAIH D15 =J8 0040-314
Treating exhaust water exuded from city waste - 60573B/33
KAOS 16.05.75 KAO SOAP KK A95 D15 (A11 D16 D17) =J8 0041-122
Dispersion of foam in aq. surfactant soln. - 01222Y/01
*KAOS 20.04.79 KAO SOAP KK D25 *DT 3013-904
High-foaming skin non-irritant alkaline cleansing compsns. - 81132C/46
KATZ/ 01.07.75 KATZEN S C03 D13 =CA 1087-810
Animal feedstuff from waste cellulose and/or lignin - 85161Y/48
KAWJ 00.00.76 KAWASAKI HEAVY IND KK D15 =J5 1105-670
Sludge separator device - 81919C/46
*KAWJ 00.00.76 KAWASAKI HEAVY IND KK D15 *J8 0041-124
Sludge separator device - 81919C/46
*KEEF/ 15.06.77 KEEFER B G D15 J01 *US 4230-564
Rotary reverse osmosis system - 82434C/46
*KEND 08.09.75 KENDALL CO D22 *IT 1046-915
Bags for collection of organic fluids - C/46
*KHWO= 23.08.77 KHARK WORK HYGIENE D21 (D22) *SU -725-669
Protective hand cream used in cosmetics - 82040C/46
KIKU- 18.04.79 KIKU MASAMANE SAKE D16 F09 J01 #DT 2915-677
Filter aid for use in filtering alcoholic drinks - 46290B/25
*KISH- 23.03.79 KISHOHIN KAGAKU KAI B04 D21 (B02) *J5 5127-309
Cosmetic contg. Scutellariae Radix aq. extract contg. flavone derivs. - 81628C/46
*KISH- 23.03.79 KISHOHIN KAGAKU KAI D21 E12 *J5 5127-310
Emulsified skin cosmetic prepn. - 81629C/46
*KISH- 23.03.79 KISHOHIN KAGAKU KAI A96 D21 *J5 5127-311
Rapid film forming face pack with good skin hydrating properties - 81630C/46
*KISH- 23.03.79 KISHOHIN KAGAKU KAI A96 D21 *J5 5127-312
Skin cosmetic pack - 81631C/46
*KISH- 23.03.79 KISHOHIN KAGAKU KAI A96 D21 *J5 5127-313
Skin cosmetic pack - 81632C/46
KITA 05.10.72 KITASATO RES INST B04 C03 D16 =J4 9055-822
Killed mycoplasma vaccine for protection of domestic animals - 11403V/07
KITA 05.10.72 KITASATO RES INST B04 C03 D16 =J8 0040-568
Killed mycoplasma vaccine for protection of domestic animals - 11403V/07
KITA 06.09.73 KITASATO RES INST B04 C03 D16 =J5 0052-222
Mixed inactivated vaccine for fowl - 81936C/46
*KITA 06.09.73 KITASATO RES INST B04 C03 D16 *J8 0041-208
Mixed inactivated vaccine for fowl - 81936C/46
*KLAZ/ 05.04.79 KLAZAR L D12 *CS 7902-327
Appts. for rapid cooling of hanging meat - C/46
*KLIN/ 18.05.79 KLINGBEIL H C04 D16 *DL -144-047
Composting liq. manure in earth enclosures - 80925C/46
KNHS 09.07.75 HOOGOVENS IJMUIDEN BV D15 J01 =US 4230-807
Regeneration of weakly basic anion exchanger - 05572Y/04
KOJK 21.05.74 KOHJIN KK C03 D13 =J5 0148-181
Culturing earthworms - 81876C/46
*KOJK 21.05.74 KOHJIN KK C03 D13 *J8 0040-220
Culturing earthworms - 81876C/46
KOKU- 03.12.77 KOKUZEI-CHO CHOKAN D16 =J8 0040-235
Brewing of sake from koji mould - 58814B/32
KOKU- 12.09.78 KOKUZEICHO-CHOKAN A97 D16 (D15) =J8 0040-234
Iron-component removal from water used for brewing - 31905C/18
*KOMP= 11.08.78 KOMPLEKS BIRD PROC D12 T06 X25 *SU -725-065
Automatic control of sausage-type articles heat treatment - 82015C/46
*KONE/ 10.05.79 KONERDING K D21 E34 *DL -143-757
Modified maddrell salts - 80823C/46
KONN 26.04.79 GIST-BROCADES NV B04 C03 D16 =NL 7903-299
Vaccine against reovirus infections in poultry - 48184C/28
KORN/ 29.01.79 KORNILOV A A D15 E32 G06 J01 (D16) #FR 2447-219
Appts. for liquid classification - 12692C/07
KRAT 06.10.77 BIZERBA-WERKE KRAUT KG D16 =DS 2744-950
Grape processing system - 29917B/16
*KRPP 05.05.79 KRUPP F GMBH C03 D13 (D23) *DT 2918-180
Processing oil-seed or -fruit de-oiling grain residue - 81095C/46
KURE 07.07.76 KUREHA KAGAKU KOGYO B04 D16 =GB 1571-075
Antitumour nitrogen contg. polysaccharides prodn. - 70692Y/40
KURE 22.11.77 KUREHA KAGAKU KOGYO D12 E35 #GB 1578-865
Removing malodorous basic components from gases - 42594B/23
KURE 29.01.79 KUREHA KAGAKU KOGYO A60 D15 E14 F06 =FR 2447-154
Ortho-methoxy-cinnamic aldehyde use as anti microbial agent 55536C/32
*KURE 26.03.79 KUREHA CHEM IND KK A97 D25 E19 (E34) *J5 5127-500
Low tri:poly:phosphate detergent compsn. - 81732C/46
KURE 26.04.79 KUREHA KAGAKU KOGYO A35 D12 F04 J03 =NL 8002-473
Formation of shapes from suspensions of fibres - 79167C/45
KURI- 25.02.75 KURITA KIKAI SEISAK D15 =J5 1097-867
Washing filter cloths of filter press - 81923C/46

*KURI- 25.02.75 KURITA KIKAI SEISAK D15 *J8 0041-128
Washing filter cloths of filter press - 81923C/46
KURK 19.11.77 KURITA WATER IND KK D15 =J8 0040-285
Treating large quantities of sludge - 53495B/29
*KURK 22.03.79 KURITA WATER IND KK D15 E36 J01 *J5 5126-522
Active carbon regenerator - 81503C/46
*KURK 22.03.79 KURITA WATER IND KK D15 E36 J01 *J5 5126-523
Appts. for regeneration of degraded active carbon - 81504C/46
*KURK 22.03.79 KURITA WATER IND KK D15 E36 J01 *J5 5126-524
Appts. for regenerating spent activated carbon - 81505C/46
*KURK 22.03.79 KURITA WATER IND KK D15 E36 J01 *J5 5126-525
Dewatering device for granular carbon slurry - 81506C/46
*KURK 22.03.79 KURITA WATER IND KK D15 E03 J01 *J5 5126-526
Feeding degraded active carbon into regenerator furnace - 81507C/46
*KURK 22.03.79 KURITA KIKAI SEISAK D15 *J5 5127-114
Filter press for treating dirty or waste water - 81593C/46
KYOW 06.02.70 KYOWA HAKKO KOGYO KK B02 C02 D16 =J8 0040-240
L-methionine microbiological production - 53468S/33
KYOW 28.10.76 KYOWA HAKKO KOGYO B07 D13 G03 (G06) =DS 2748-405
Inductively heat treating gelatin - 33772A/19
*KYOW 23.03.79 KYOWA HAKKO KOGYO KK D16 *J5 5127-989
Benzhydryl:amino gp.-isolating enzyme - 81759C/46
*KYOX 21.05.74 KYOWA SANGYO KK C03 D13 *J8 0040-220
Culturing earthworms - 81876C/46

LAGS/ 18.04.79 LAGSTROM E G D15 M25 =WP 8002-235
Extraction of valuable substances from sea water - 79412C/45
*LAIT- 02.03.78 LAITERIES TRIBALLAT D13 *FR 2447-149
Lacto-serum obtained by contacting skimmed milk with cationic resin - 81230C/46
*LAIT- 24.01.79 LAITERIES TRIBALLAT D13 *FR 2447-151
Prepn. of casein from skimmed milk using cationic resin - 81232C/46
*LANK 18.04.79 LANKRO CHEMICALS LTD A97 D25 E11 *GB 2046-321
Thickener for hypochlorite bleach - 81316C/46
LATI/ 23.01.79 LATIF A D21 #FR 2447-190
Compsn. for treating hair loss, baldness, dandruff etc. - 06439B/04
*LEMO/ 22.12.78 LEMOINE K D D15 *US 4230-530
Water distiller with intermittent overflow - 82410C/46
LEVI/ 01.03.76 LEVINE N S A96 D22 =GB 1571-049
Surgical dressing contg. stretchable fabric layers - 65315Y/37
*LEWI/ 11.07.79 LEWIS V M D13 *BE -884-194
Dehydration of vegetables to desired water content and activity - 80748C/46
*LIED/ 05.04.79 LIEDLOFF B D21 E34 *DL -143-594
Maddrell's salts prepd. with low water solubles content - 80775C/46
LIFE- 02.02.76 LIFE SAVERS INC D13 =CA 1087-905
Chewing gum having long-lasting flavour - 56120Y/32
*LIMM/ 09.01.78 LIMMER H D16 H04 *DL -143-922
Low-pour point oils prodn. - 80888C/46
*LINM 24.04.79 LINDE AG D16 E17 J01 *DT 2916-585
Purificn. or sepn. of gases by pressure changes and adsorption - 81007C/46
*LIOY 23.03.79 LION FAT & OIL KK A96 D21 *J5 5127-308
Weakly acidic emulsified cosmetic - 81627C/46
*LIVE= 16.11.77 LIVESTOCK FARM MECH AUTO D14 J02 *SU -725-690
Mixer for animal feeding materials - 82050C/46
*LIYA/ 16.11.78 LI Y T D15 J01 *US 4230-529
Thin film promoting distillation appts. - 82409C/46
LOIR- 24.03.79 LOIRE KESHOHIN KK B07 D21 =J5 5127-131
Emulsifier for creams and lotions - 71850C/41
*LOIR- 24.03.79 LOIRE KESHOHIN KK D21 E16 (E17) *J5 5127-132
Emulsifier-compsn. used in cosmetic mfr. - 81607C/46
*LOIR- 24.03.79 LOIRE KESHOHIN KK D21 E16 (E17) *J5 5127-133
Emulsifier compsn. for cosmetic use - 81608C/46
LOIR- 24.03.79 LOIRE KESHOHIN KK B07 D21 =J5 5127-318
Emulsifier for creams and lotions - 71850C/41
LOMS 26.05.78 LAB OM SA B04 D16 =DL -143-729
Prevention and treatment of respiratory tract infections - 75331B/42
*LRSR- 14.05.79 LRS RESEARCH D16 *US 4230-676
Automatic composting apparatus with forced draught - 82488C/46

*MACH/ 19.01.79 MACHO V D13 *CS 7900-422
Preservation and fortification of vegetable products - C/46
*MATH/ 24.01.79 MATHEY R M D13 *FR 2447-150
Pre-roasting treatment for green coffee - 81231C/46
MAYE/ 09.05.73 MAYER H D14 =DS 2323-229
Cooker fume-extraction hood - 24968V/14
MEAT= 14.03.77 MEAT IND RES INST D12 (D16) =DS 2810-855
Enzyme preparation for tenderising meat - 69235A/39
MERE 11.11.76 MERCK PATENT GMBH A96 B05 D22 G03 =CA 1087-984
Compsn. contg. polyacrylate or polymethacrylate and antibiotic - 34958A/20
*MERE 28.04.79 MERCK PATENT GMBH A96 D22 *DT 2917-446
Surgical suture network used for healing bone defects - 81076C/46
*MERI 13.11.78 MERCK & CO INC B07 D22 *US 4230-105
Bandage for delivering drugs across skin or mucosa - 82338C/46
*MESR 20.04.79 MESSERSCHMITT-BOLKOW-BLO D22 E36 J01 *DT 2915-953
Gas component segregation from gas mixt. - 80981C/46
METG 17.04.78 METALLGESELLSCHAFT AG A88 D15 =US 4230-569
Appts. for treating cooling water with hypochlorite - 79418B/44
MEYN/ 05.07.78 MEYN P D12 S02 =NL 7815-067
Weighing and grading fowls hanging from shackles - 02098C/02
MICR- 04.01.80 MICRO-CHEM DEV LAB D15 S05 T06 X25 =SW 8000-062
Ultraviolet water steriliser - 73863C/42
MICR- 04.01.80 MICRO-CHEM DEV LAB D15 S05 T06 X25 =SW 8000-063
Ultraviolet water steriliser - 73863C/42
*MILE 28.04.75 MILES LABORATORIES INC B04 D16 *US 4230-797
Heterogeneous specific binding assay for ligand determn. - 82540C/46
MILE 15.09.75 MILES LABORATORIES INC D13 (D12) =US 4230-738
Prepn. of protein concentrate with fish texture - 15969A/09
MILE 13.02.78 MILES LABORATORIES INC B04 D16 J04 S03 (S05) =US 4230-798
Test reagent for uric acid determn. - 61704B/34
*MILO/ 12.03.79 MILOSCHEWSKY D A96 D22 F02 *CS 7901-619
Silicone yarn for medical use - C/46
MINN 05.04.79 MINNESOTA MINING CO D22 =GB 2046-100
Tibial prosthesis for knee joint - 63936C/36
MINU 16.04.79 MINNESOTA UNIVERSITY B04 D16 S03 (S05) =WP 8002-294
Diagnosis of cystic fibrosis and detection of carriers - 79375C/45
MIRA- 23.03.79 MIRA LANZA SPA D25 E19 =DK 8001-228
Washing powder compsn. of low phosphate content - 55257C/32
MIRA- 23.03.79 MIRA LANZA SPA D25 E19 =NO 8000-843
Washing powder compsn. of low phosphate content - 55257C/32
MIRA- 23.03.79 MIRA LANZA SPA D25 E19 =SW 8002-189
Washing powder compsn. of low phosphate content - 55257C/32
*MISU- 02.02.79 MISUZU KOGYO KK D15 *J5 5127-115
Liq. separator e.g. for sludge - 81594C/46
MITB 07.06.77 MITSUI SHIPBUILDING ENGG D16 (D13) #US 4230-806
Single cell protein and fat mfr. by cell cultivation - 58413Y/33
*MITK 23.03.79 MITSUI TOATSU CHEM INC B02 D16 E13 *J5 5127-992
Tryptophan prepn. from indole and (methyl)-L-cysteine - 81760C/46
*MITN 11.04.79 MITSUBISHI GAS CHEM IND B04 D16 S03 *DT 3014-001
Peroxidase enzyme microbiological prodn. - 81134C/46
MITO 29.08.73 MITSUBISHI HEAVY IND KK D15 =J8 0040-319
Flouride-citrate waste water treatment - 00736X/01
MITP 08.11.77 MITSUBISHI PETROCH KK B04 D16 =US 4230-800
Polysaccharide prepn. from Pseudomonas polysaccharogenes - 82126A/46
MITP 08.11.77 MITSUBISHI YUKA PHAR B04 D16 =US 4230-800
Polysaccharide prepn. from Pseudomonas polysaccharogenes - 82126A/46
MITR 09.04.79 MITSUBISHI RAYON KK A96 B04 D16 (A97) =GB 2046-271
Enzyme and microorganism immobilisation - 75564C/43
MITU 29.09.78 MITSUBISHI CHEM IND KK B04 D16 =DK 7904-101
Long chain acyl-coenzyme/A synthetase - 27661C/16
*MITU 26.03.79 MITSUBISHI CHEM IND KK B01 D16 *J5 5127-995
Prepn. of 3-Beta-23,24-bis:norchol-5-en-22-oic acid - 81762C/46
*MIZA 26.03.79 MIZUSAWA KAGAKU KOG D25 E33 *J5 5127-498
High stability aq. zeolite slurry - 81730C/46
*MIZA 26.03.79 MIZUSAWA KAGAKU KOG D25 E33 *J5 5127-499
Aq. zeolite slurry used as detergent builder - 81731C/46
*MOBI 16.04.79 MOBIL OIL CORP D15 H05 J01 M11 *DT 3014-678
Complex metal cyanide removal from industrial effluent - 81145C/46
*MOFO= 18.09.78 MOSC FOOD IND TECHN D14 S03 *SU -724-987
Edible materials rheological properties measuring device - 82002C/46
*MOLL/ 11.03.75 MOLL J D14 *DL -143-696
Potato dressing station - 80800C/46
*MOMD 11.04.78 MOSCOW MEAT DAIRY INST A97 D14 *SU -725-643
Prodn. of edible proteins from animal blood plasma - 82035C/46
MONS 17.05.74 MONSANTO CO D25 E19 =CA 1088-096
Carboxymethoxy-bis(carboxy)-methoxy derivs. of alcohols - 80236W/49
*MONS 18.12.75 MONSANTO CO A96 B04 D16 S03 *US 4230-537
Electrode system for biochemical analysis - 82417C/46
MONT 26.01.79 MONTEDISON SPA D15 E33 =FR 2447-349
Prepn. of type 4A zeolite(s) in two stages - 55239C/32
*MOOR- 26.09.77 MOORE-PERK CORP D22 E36 *US 4230-663
Low temp. sterilisation of e.g. contact lens - 82480C/46
MORG 09.03.73 MORINAGA MILK KK B02 D13 E13 =DS 2462-519
Refined lactose prepn. from whey contg. no vitamin - 36507Y/21
*MUCH/ 27.04.79 MUCHA F D17 *CS 7902-918
Crystalline sugar storage - C/46
MUEL/ 19.01.79 MUELLER A D16 =DK 8000-166
Reducing alcohol content of completely or partly fermented drinks - 60834C/35
*MURM= 23.12.76 MURMANSK GIPRORYBFL D12 *SU -725-642
Fish drying and curing equipment - 82034C/46
MYOJ- 29.03.77 MYOJO FOODS CO LTD D11 =US 4230-735
Instant noodle prepn. - 86808A/48

NAAR 15.03.76 NAARDEN INT NV D13 E13 =US 4230-734
(4)-Methyl-(4)-furfurylthio-pentanone - 69259Y/39

NAKA 07.06.73 NAKANO SU MISE KK D16 (D13) =J5 0013-598
Inhibiting pptn. of fermented vinegar - 81878C/46

*NAKA 07.06.73 NAKANO SU MISE KK D16 (D13) *J8 0040-236
Inhibiting pptn. of fermented vinegar - 81878C/46

NATR 19.06.72 NATIONAL RES DEV CORP B04 D16 S03 S05 =DS 2246-695
Enzyme prepns from nocardia microorginisms - 19943U/15

NATR 02.12.77 NATIONAL RES DEV CORP D15 =US 4230-570
Liquid aerating device esp. for waste water - 44408B/24

NATT 26.04.79 NAT STARCH & CHEM CORP A81 D22 G03 (A14 A96) =NL 8002-256
Pressure sensitive fusible adhesive prepn. - 62324C/36

NELR 08.06.77 NELSON RES & DEV D22 #CA 1087-978
Contact lens conserve solution - 76739Y/43

NELS/ 16.04.79 NELSON R W C03 D13 (D16) =DT 2934-675
Stable liq. animal feed emulsions - 80119C/45

NEST 05.09.69 SOC PROD NESTLE SA D13 =IT 1046-782
Fruit flavoured beverage powder - 15362S/08

NEST 24.06.76 SOC PROD NESTLE SA D13 =GB 1571-156
Continuous extraction of coffee or tea - 02582A/02

NEST 02.08.76 SOC PROD NESTLE SA D13 =CA 1087-910
Fresh cheese having high storage stability - 12609A/07

NEST 22.02.77 SOC PROD NESTLE SA C03 D13 E16 =GB 1579-090
Prodn. of methionine- contg. foodstuff additives - 82876A/46

*NICH- 26.03.79 NICHIDEN KAGAKU KK A11 D22 (A14 A96) *J5 5127-402
Graft-modified starch and graft-modified CMC - 81674C/46

NIKL 19.01.76 JAPAN STEEL WORKS D15 =J5 2087-858
Waste water treating appts. - 81922C/46

*NIKL 19.01.76 JAPAN STEEL WORKS D15 *J8 0041-127
Waste water treating appts. - 81922C/46

NIPK 13.08.75 NIPPON KAYAKU KK A60 C01 D22 E12 (D15) =J8 0040-561
Disinfectant contg. dichlorovinyl-salicylamide metal salt - 22787Y/13

NISB 25.05.77 JAPAN TOBACCO & SALT PUB A88 D18 F04 =J8 0040-231
Tobacco filter mfr. - 09089B/05

*NISB 27.03.79 JAPAN TOBACCO & SALT PUB D18 E35 (E36) *J5 5127-980
Reducing nicotine content in tobacco leaves - 81756C/46

NISH/ 22.05.75 NISHIMURA T C03 D22 F06 G02 =J8 0040-566
Fungicidal compsn. for protecting materials from microorganisms - 02959Y/02

*NISH/ 22.03.79 NISHIKAWA T D14 *J5 5127-130
Coffee bean mixer - 81606C/46

*NISS 07.06.73 NISSHIN FLOUR MILL KK D16 (D13) *J8 0040-236
Inhibiting pptn. of fermented vinegar - 81878C/46

*NISY 20.03.79 NIPPON SYNTH CHEM IND A96 D22 (A14) *J5 5125-865
High absorbability film mfr. - 81403C/46

*NITL 27.03.79 NITTO ELECTRIC IND KK D13 *J5 5128-000
Treating waste juice from sepn. of starch from ground potato - 81765C/46

NMHB 06.02.79 NORDISCH MASCH R BAADER D12 #DL -143-852
Fish filleting machine - 66409B/37

*NONB= 17.05.78 NONBLACK ZONE AGRIC C03 D13 (C04) *SU -725-644
Conversion of animal excreta into fertiliser and protein feedstuff - 82036C/46

NOUN 28.02.79 NORTHWESTERN UNIV D16 S03 =US 4230-685
Sepn. of cells, bacteria or viruses from mixed populations - 71999C/41

NOVE- 26.03.79 NOVEX TALALMANYFEJL D15 J01 =SW 8000-739
Separator for liq. systems - 71801C/41

*NSSK 26.03.79 NISSEI SANGYO KK D15 *J5 5127-117
Water filter e.g. for pond - 81596C/46

ODDO/ 24.01.79 ODDOUX C A92 D13 =FR 2447-142
Draining bowl for fresh cheese - 55495C/32

*ODFO= 29.08.77 ODESS FOOD IND TECH D11 T06 X25 *SU -725-639
Kneading machine process control appts. - 82031C/46

*ODPR= 14.04.77 ODESS PROV EQUIP D17 *SU -726-165
Refined sugar bars cutting and packaging unit - 82289C/46

*OPPE- 25.04.79 OPPERMANN & DEICHMA D17 *DT 2916-654
Handling system for sugar beet - 81016C/46

*OREA 19.04.66 L'OREAL SA D21 E16 *NL 8003-421
Hair conditioner prepn. - 81950C/46

OREA 26.06.72 L'OREAL SA D21 E34 =IT 1046-528
Lyophilisates of oxidn dyes - 02872V/02

OREA 30.11.73 L'OREAL SA A96 D21 =CA 1088-250
Hair-conditioning agents - 39724W/24

OREA 26.06.75 L'OREAL SA D21 E24 =CA 1088-066
Nitro couplers for keratinous fibre dyeing prepns. - 03916Y/03

OREA 19.01.76 L'OREAL SA D21 E14 =CA 1087-988
Hair dyeing compsns. contg. easily oxidised diphenylamines - 50431Y/29

OREA 13.05.76 L'OREAL SA A96 D21 G02 (A14) =CA 1087-989
Nail varnish contg. methyl methacrylate-hexyl methacrylate copolymer - 82910Y/47

OREA 29.01.79 L'OREAL SA A96 D21 E17 (A14 E14) =FR 2447-189
Cosmetic compsns. for greasy hair and skin - 55240C/32

OREA 26.04.79 L'OREAL SA D21 E24 =DT 3016-109
Substd. meta-phenylene di:amine cpds. - 78918C/45

OREA 26.04.79 L'OREAL SA D21 E24 =NL 8002-364
Substd. meta-phenylene di:amine cpds. - 78918C/45

ORTH 20.03.79 ORTHO PHARM CORP B04 D16 S03 (S05) =DK 8001-172
Mono:clonal antibody of IGG class - 77465C/44

ORTH 20.03.79 ORTHO PHARM CORP B04 D16 S03 (S05) =J5 5127-321
Mono:clonal antibody of IGG class - 77465C/44

OXOI- 11.01.77 OXOID LTD D16 =CA 1088-013
Appts. for forming non-toxic atmospheres - 53794A/30

PASE 14.04.79 PASSAVANTW MICHELBACHER D15 =GB 2046-116
Bar screen cleaning rake - 49934C/29

*PERI/ 28.06.74 PERI C D16 *IT 1046-733
Alcoholic ferments stabilisation - C/46

*PETE/ 24.04.79 PETER P D21 L02 M13 *DT 3015-529
Strengthening dental prosthesis enamel contg. light alkali oxide - 81182C/46

*PETL 24.11.74 PETROLITE CORP A14 D15 H05 (A91) *US 4230-839
Polymer of adduct of polymerisable amine salts with acrylonitrile - 82558C/46

PFIZ 23.09.74 PFIZER INC B02 C02 D13 =IT 1046-968
Quinoxaline 1,4-dioxide premixes - 24412X/14

PFIZ 04.02.77 PFIZER INC B03 D22 E13 G02 (D15) =DL -143-779
Antibacterial 4''-deoxy-4''-amino-erythromycin derivs. - 58751A/33

PFIZ 23.03.77 PFIZER INC A14 D15 (A97) =J5 5127-415
Insoluble granular maleic anhydride terpolymers for scale control - 04071A/02

*PIAZ/ 10.01.75 PIAZZA P D15 *IT 1046-757
Portable water purifier - C/46

PIER/ 06.11.72 PIERRET C J D21 =DS 2355-074
Mask-forming skin prepn - 21083V/12

*PIET/ 21.05.79 PIETZ R D16 *DL -143-791
Prepn. of sulphited additive for wine - 80842C/46

*PIFF/ 11.02.74 PIFFERI P G D13 *IT 1046-545
Fruits and vegetable decolourisation process - C/46

*POLI- 11.04.78 POLIN E C DI SAS D11 X27 *IT 1046-951
Forced circulation bread baking oven - C/46

POLY- 21.02.79 POLYTHETICS INC A96 D22 (A25) =BR 8001-020
Dentures with improved thermal deformation resistance - 64436C/37

*PONO/ 02.11.77 PONOMAREV V G D15 *SU -725-686
Multistage hydrocyclone for purifying river water - 82046C/46

*POTA= 04.07.77 POTATO FOODSTUFFS D13 *SU -725-646
Equipment for drying potato puree to produce granules - 82038C/46

*POWE- 16.04.79 POWERS NUTRITION CO D13 *WP 8002-226
Dry, water-dispersible nutritional food compsn. - 82588C/46

PROC 02.10.70 PROCTER & GAMBLE CO D13 =DS 2148-626
Coffee extract - 24048T/15

PROC 16.09.74 PROCTER & GAMBLE CO D13 (D12) =IT 1046-975
Shaped, (imitation) meat products - 24867X/14

PROC 12.07.76 PROCTER & GAMBLE CO A92 D25 F06 =GB 1578-951
Garment finishing compsn. enclosed in a permeable bag - 06705A/04

PROC 20.12.76 PROCTER & GAMBLE CO A26 D25 E11 (A97) #CA 1088-088
Organosilanes and oligomeric siloxanes - 10791Y/06

PROC 13.03.78 PROCTER & GAMBLE CO A97 D25 E19 =DT 2948-921
Low phosphate laundry detergent compsn. - 68460B/38

*PUJO/ 25.01.79 PUJOL Y D12 *FR 2447-148
Machine to knot thread around neck of sausage skin etc. - 81229C/46

*PURA 22.03.79 PURAC AB D15 T06 *SW 7902-574
Dispersion unit water control - C/46

QUAK 22.07.71 QUAKER OATS CO D13 =IT 1046-629
Acidic proteinaceous beverages - 60426V/34

*RALS 18.12.78 RALSTON PURINA CO C03 D13 *US 4230-736
Liq. feed supplement for ruminants - 82517C/46

RECK/ 24.08.78 RECK H D15 =DT 2916-845
Manure pit aerator - 16880C/10

REEM 29.01.79 REEMTSMA H F & P F D18 =FR 2447-155
Improving the packing capacity of tobacco - 43298C/25

*REHA/ 00.00.79 REHACEK Z B04 D16 *CS 7901-606
Industrial mutant of Claviceps purpurea CP 7-274 CCM-623 - C/46

RESE 26.04.78 RESEARCH CORP B04 D16 K08 S03 (S05) =DL -143-629
Protease free coenzyme/a -synthesising protein complex - 00008B/01

RHOD 23.12.76 RHODIA AG D18 E37 =DS 2658-479
Metal oxide mixt. decreasing tobacco smoke toxicity - 30279A/17

RHON 05.03.74 RHONE-POULENC INDUSTRIES B04 C03 D16 =IT 1046-878
Antibiotic 31,559 RP with antibacterial, coccidiostatic activity 62610W/38

RHON 09.12.75 RHONE-POULENC INDUSTRIES A25 D25 (A97) =GB 1578-930
Polyurethane with hydrophobic and hydrophilic gps. - 41678Y/24

RHON 27.07.77 RHONE-POULENC INDUSTRIES A97 D16 E13 (A11 D17) =CA 1088-010
Cells contg. glucose-isomerase enclosed in cellulose ester - 08012B/05

RHON 16.02.78 RHONE-POULENC INDUSTRIES B04 C03 D16 (D13) =FR 2447-400
Enzymes immobilised on inorganic supports - 65025B/36

RICT 21.03.79 RICHTER GEDEON VEGY D12 (D15) =DK 8001-195
Removal of solids from waste liquids e.g. from slaughter houses - 72785C/41

RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 =DK 8001-199
Dryer-granulator for heat-sensitive organic materials e.g. biological - 71595C/41

RICT 21.03.79 RICHTER GEDEON VEGY D15 J08 =DK 8001-200
Heating or cooling plant for wet solids partic. pulpy materials - 71596C/41

RIKV 02.08.73 RIKEN VITAMIN KK C03 D13 =J5 0034-950
Mfg. binder for feedstuff pellets - 81877C/46

*RIKV 02.08.73 RIKEN VITAMIN OIL KK C03 D13 *J8 0040-222
Mfg. binder for feedstuff pellets - 81877C/46

ROGG 28.08.74 ROGER & GALLET A97 B07 D16 =IT 1046-889
Formation of aerosol prods - 85013W/52

ROHA 21.01.74 STAHLW ROCHLING D15 H09 J01 #IT 1046-717
Decomposing ammonia contained in effluent waters from coking plants - 30929V/17

ROHG 23.03.79 ROHM GMBH D18 =BR 8000-908
Liming of hides and skins - 71735C/41

ROHM 22.06.76 ROHM & HAAS CO A91 D15 (A97) =CA 1087-864
Crosslinked anion exchange resin contg. microbicide - 00017A/01

ROHM 22.01.79 ROHM & HAAS CO A14 D15 (A97) =J5 5127-413
Low molecular, water soluble polymer prepn. - 57362C/33

ROQF 23.01.79 ROQUETTE FRERES SA C03 D13 E17 =FR 2447-152
Improved feeding of pre-ruminant animals, esp. calves - 55227C/32

ROQF 23.01.79 ROQUETTE FRERES SA C03 D17 F06 M22 (F09) =FR 2447-388
Hydrogenated starch hydrolysate fixed to carrier - 55501C/32

*ROSS/ 24.04.79 ROSSI J C03 D13 *DT 3010-188
Detoxicating and/or taste-improving plant seed oil feedstuff treatment - 81117C/46

ROSS/ 24.04.79 ROSSI J C03 D13 =NL 8001-965
Detoxicating and/or taste-improving plant seed oil feedstuff treatment - 81117C/46

SAKA 26.02.79 OTSUKA PHARM KK B02 C02 D22 E13 =BR 8001-094
Antimicrobial 1,4-di:hydro-4-oxo-quinoline-3 carboxylic acid derivs. - 62781C/36

SALE/ 24.01.79 SALETE-GARCES F D13 =FR 2447-226
Rice grain polishing machine - 57115C/33

SALZ 16.09.72 SALZGITTER MASCHINE D17 =DS 2245-593
Rotary drum sugar drier - 23240V/13

*SAMB/ 10.06.77 SAMBORSKII I V D15 *SU -726-123
Prodn. of recirculated water supply scaling inhibitor - 82270C/46

*SANN 23.03.79 SANYO CHEM IND LTD D21 E14 (E16) *J5 5127-496
Improving odour of cationic surfactant compsns. - 81728C/46

*SANN 27.03.79 SANYO CHEM IND LTD D21 E14 (E16) *J5 5127-497
Deodorising a cationic surfactant - 81729C/46

SANO 10.09.74 SANDOZ AG A97 D18 E16 =IT 1046-919
Dyeing chromium-tanned leather - 22927X/13

*SANY 24.03.79 SANKYO KK B04 D16 *J5 5127-398
Antibiotic afragilimycin effective against serophillic bacteria - 81670C/46

*SAVI/ 05.02.74 SAVI A D13 *IT 1046-743
Tomatoes skinning process and appts. - C/46

SCHD 25.01.79 SCHERING AG D15 =FR 2447-351
Water evaporation from aq. solns. - 55384C/32

*SCHE 09.02.77 SCHERING CORP B03 C02 D16 *US 4230-799
Prepn. of antifungal antibiotic W-10 complex - 82541C/46

SCHE/ 19.02.76 SCHEINBERG I H A97 D16 E36 J04 (S03) =CA 1087-968
Filter contg. carbon monoxidase - 61428Y/35

SCHI/ 10.01.77 SCHICK J H D16 (D13) =GB 1579-012
High yield microbiological prodn. of unicellular protein foodstuff - 33491A/19

*SCHI/ 30.04.79 SCHIERBAUM E D14 *DT 2917-525
Mixer and dispenser for animal feeds - 81077C/46

*SCHM/ 12.03.79 SCHMIDT U B04 C03 D16 *DL -143-793
Infectious bursitis vaccine prodn. - 80844C/46

*SCHO/ 25.05.79 SCHOPPE K D18 *DL -143-795
Prodn. of pigskin with a wrinkled finish - 80846C/46

SCHR/ 25.06.73 SCHREIBER A D15 =IT 1046-840
Filter for purificn of waste water - 79317V/46

*SCHR/ 19.06.79 SCHRODER H D12 X25 *DL -143-761
Grease separation plant for meat processing - 80827C/46

SCLA 12.04.77 SCHWARTZ SERVICES C03 D22 E19 F06 #CA 1087-977
Binding antimicrobials to hydroxylated substrates - 51909Y/29

*SEGK 23.03.79 SEIKAGAKU KK B04 D16 *J5 5127-988
Peptidase prodn. from Flavobacterium bacteria - 81758C/46

SELW/ 07.04.76 SELWYN S L B04 D21 E24 S03 (S05) =CA 1087-981
Dental compsn. for showing up plaque - 55836Y/32

*SHAL= 28.12.72 SHALE RES INST D15 E14 *SU -726-031
Removal of organic cpds., e.g. phenol(s) from waste water - 82192C/46

SHIR/ 09.09.76 SHIRAI K D13 =CA 1087-911
Fine deodorised soybean powder - 21474A/11

SHIS 04.05.73 SHISEIDO CO LTD D21 =IT 1046-510
Hair waving compsn contg sulphites or bisulphites - 81267V/47

*SHOS= 17.10.77 SHOSTKA CHEM REAGENTS D15 E36 *SU -726-030
Purificn. of waste water contg. dyes - 82191C/46

*SIMC 03.04.79 SIMON-VICARS LTD D11 X25 *GB 2046-164
Cutting dough sheet into biscuit blanks - 81301C/46

*SIMO/ 09.03.79 SIMON E D18 E11 *US 4230-131
Self-extinguishing cigarettes - 82343C/46

*SIYA 26.03.79 SANSEI SEIYAKU KK D16 E13 *J5 5127-993
Prodn. of kojic acid useful for preventing sunburn - 81761C/46

*SMEL/ 22.12.78 SMELIK A D17 *CS 7808-811
Sugar beet washing method - C/46

SMIK 23.03.73 SMITHKLINE CORP B05 C03 D13 E14 (B03 C02 E13) =IT 1046-854
Inhibiting rumen and intestinal microbial deamination - 69882V/40

SMIT/ 23.04.79 SMITH R E B04 D16 =WP 8002-295
Fluorometric or spectrophotometric determn. of enzymes - 79329C/45

SNAM 06.06.75 SNAMPROGETTI SPA A91 D15 F01 J01 (D16) =CA 1087-820
Prepn. of fibres contg. occluded complex builders - 94693X/51

SNAM 01.09.76 SNAMPROGETTI SPA D15 H03 =US 4230-562
Microbiological purification of water contaminated with mineral oil - 18159A/10

SNAM 12.05.78 SNAMPROGETTI SPA A96 B04 D16 =DL -143-730
Reduction of phenylalanine levels in blood and other media - 82559B/46

SNAM 23.05.78 SNAMPROGETTI SPA B05 D16 E19 =DL -143-767
Prepn. of D-aminoacids - 85938B/48

SNAM 24.05.78 SNAMPROGETTI SPA D14 J01 (D23) =DL -143-732
Continuous solid-liq. extn., esp. of vegetable material - 85965B/48

SNKM 24.06.77 SANKIN KOGYO D21 M26 =J8 0040-652
Castable nickel alloy used in dentistry - 17132B/09

SNOW 20.03.79 SNOW BRAND MILK PRODUCTS D13 =DK 8001-180
Cheese snacks mfr. - 71817C/41

SOLL- 31.07.75 SOLLICH & CO GMBH D13 =DS 2534-131
Boiled sugar mass cooling - 09621Y/06

*SPOR= 04.01.78 SPORT TOURIST OBJEC D18 *SU -726-166
Leather skins drafting unit - 82290C/46

*STAH/ 27.03.79 STAHLER T D15 *NO 8000-886
Sewage aeration basin with revolving drum - C/46

STAU 09.07.76 STAUFFER CHEMICAL CO D11 E33 =CA 1087-829
Calcium modified crystalline alkali metal aluminium phosphates - 04089A/03

*STAU 12.11.76 STAUFFER CHEMICAL CO D11 E34 (E33) *US 4230-730
Leavening acid compsn. - 82516C/46

*STRA/ 01.12.78 STRANSKY V D11 T06 *CS 7807-920
Control of hot gases fed into baking oven - C/46

SUME 01.07.77 SUMITOMO ELEC IND KK A96 B07 D22 (A14) =US 4229-838
Vascular PTFE prosthesis - 78441A/44

*SUMQ 20.03.79 SUMITOMO METAL IND KK D15 M14 (M27) *J5 5125-282
Sacrificial anode for titanium tube and copper alloy tube plate - 81377C/46

SUND/ 23.07.76 SUNDBERG H M D15 =CA 1088-227
Domestic septic tank - 08677A/05

*SURE- 28.07.77 SUREX SWIMMING POOL D15 *GB 1571-224
Chlorine applicator placed in liquid flow - 81270C/46

*SUZU/ 23.03.79 SUZUKI Y D13 *J5 5127-972
Improving taste of food contg. stevioside - 81755C/46

*SYKO/ 26.03.79 SYKORA O D16 *CS 7901-990
Red wines prodn. - C/46

SYND- 24.01.79 SYND NAT FAB SUCRE D17 (D15) =FR 2447-350
Plant to purify sugar refinery effluent and produce methane - 57382C/33

TAKE 15.07.69 TAKEDA CHEMICAL IND KK D16 E17 =DS 2034-593
Citric acid from isocitric acid by ferment- - 06285S/03

TAKE 24.10.72 TAKEDA CHEMICAL IND KK B05 C03 D13 E16 (E15) =J8 0041-227
Isonitrosomalonates prodn - 33059V/18

TANB 25.03.78 TOKYO TANABE KK C03 D13 =J8 0040-221
Feedstuff for crustacea, e.g. shrimps, lobsters, crabs, etc. - 83451B/46

*TART= 27.03.78 TARTAR PETRO IND D16 E33 H01 *SU -724-704
Control of hydrogen sulphide formation in flooded oil structures - 81973C/46

TEIJ 13.03.78 TEIJIN KK A60 D13 E36 G04 (D22) =US 4230-595
Oxygen scavenging and heat generating compsn. - 68443B/38

TEIJ/ 17.04.78 TEIJEIRO J M D13 #CA 1087-909
Lobster or shrimp food prodn. - 90077B/50

TERU- 28.03.79 TERUMO CORP D22 =SW 8002-381
Artificial organ esp. kidney, liver etc. - 56944C/33

TETR 18.02.77 TETRA PAK INT AB D14 =CA 1087-812
Sterilising pipe for a foodstuffs filler tube - 62128A/35

*TEZU/ 30.09.77 TEZUKA A D13 *US 4230-728
Temporary pack for rice ball and laver wrapping - 82515C/46

*THIS- 15.03.79 THISTLE ENG LTD D13 (D11) *GB 2046-110
Softening of cooking fats - 81295C/46
*THOR- 23.03.79 THORN SVENSKA AB D15 *DT 3011-106
Prodn. of sparkling drinks - 81120C/46
THOR- 23.03.79 THORN SVENSKA AB D15 =GB 2046-112
Injecting gas esp. carbon di:oxide into water - 70008C/40
*TIIC- 18.09.78 TII CORP A88 D15 J01 *US 4230-467
Foam removal apparatus uses inclined foam collecting cover - 82386C/46
TOBC 06.07.71 TOBACCO RES & DEV INST D13 (D16) =IT 1046-785
Extracting flavours and fragrances - 04492U/04
*TOKE 24.03.79 TOKYO SHIBAURA ELEC LTD D15 *J5 5127-110
Sewage treatment - 81590C/46
TOPP 28.10.75 TOPPAN PRINTING KK A97 B07 D13 G02 (S06) =J8 0041-194
Powder coating comspn. for electrostatic printing edible materials - 42362Y/24
*TORN 23.03.79 TORAY ENG KK D15 *J5 5127-190
Removing inorganic phosphorus from waste water - 81622C/46
TOSU- 19.08.74 TOYO SUGAR REFINING B03 D13 E13 =J8 0040-596
Stevioside isolation and purificn. - 27238X/15
TOYM 19.09.75 TOYO SPINNING KK D16 (D13 D17) =J8 0040-238
Microbial prodn. of arabinogalactanase - 31895Y/18
TRAD- 26.01.79 TRADEX SARL D22 =FR 2447-221
Domestic air filter element for deodorising refrigerator - 55238C/32
*TRIP/ 10.04.79 TRIPODI A D13 *BR 7902-267
Food product mfr. - C/46
TRYC 25.10.76 TROY CHEMICAL CORP A82 D22 E16 G02 (A11) #CA 1088-012
Cellulosics thickened paints - 09156Y/05
TSUB 23.01.75 KUMIAI CHEM IND KK C03 D22 E14 F09 =J8 0040-562
Antiseptic, antifungal wood preservative - 69417X/37
TSUB/ 17.03.76 TSUBOKAWA T D15 =J5 2135-461
Appts. for washing sludge sedimentation tank - 81920C/46
*TSUB/ 17.03.76 TSUBOKAWA T D15 *J8 0041-125
Appts. for washing sludge sedimentation tank - 81920C/46
*TSUK/ 23.03.79 TSUKAMOTO M D21 E17 *J5 5125-807
Cosmetic abrasive for polishing nails - 81401C/46
*TSUM/ 22.03.79 TSUMURA K D15 *J5 5127-102
Liq. evapn. employing solar energy - 81582C/46
TSZE 07.02.79 TATABANYAI SZENBANYAK D15 =GB 2046-235
Purifying waste water contg. dissolved organic impurities - 62714C/36
TUCH- 24.04.79 TUCHENHAGEN O GMBH D16 T05 X25 =NL 8002-392
Monitoring of cleaning equipment in fermenting vat - 64215C/37
*TUPO= 05.06.78 TULA POWER CONTR D15 T06 *SU -724-456
Industrial water softening plant liming control - 81963C/46

*UAGR= 16.11.77 UKR AGRIC MECH ELEC D14 J02 *SU -725-690
Mixer for animal feeding materials - 82050C/46
*UCEL= 03.01.77 UKR CELL-PAPER INST D15 F09 *SU -726-029
Removing finely suspended impurities from paper pulp mfg. waste water - 82190C/46
*UFAP 01.03.78 UFA PETRO INST A97 D16 E16 H01 *SU -724-705
Agent for suppressing growth of sulphate-reducing bacteria - 81974C/46
UNIC 17.05.73 UNION CARBIDE CORP A96 D21 =IT 1046-644
Hair shampoos having conditioning activity - 85929V/50
UNIC 11.04.79 UNION CARBIDE CORP D12 #BR 7902-248
Shirred sausage casing - 61398B/33
UNIC 11.04.79 UNION CARBIDE CORP D12 #GB 2046-069
Shirred sausage casing - 61398B/33
UNIC 20.04.79 UNION CARBIDE CORP A88 D15 J01 (A25) #BR 7902-433
Filtration removal of suspended solids from liquid - 59716B/32
*UNII 11.12.78 UNIV OF ILLINOIS A97 D15 J04 (A13) *US 4230-828
Polymer bound schiff base ligand systems - 82553C/46
UNIJ 25.01.79 UNICLER SA B04 D16 =FR 2447-193
Pichia fermentans cells or insoluble glucan extracts - 64662C/37
UNIL 17.09.69 UNILEVER NV D12 =DS 2045-988
Dehydrated meat-based food product - 21835S/12
UNIL 16.11.70 UNILEVER NV D13 =DS 2156-067
Imitation fruit prepn - 33854T/21
UNIL 25.07.73 UNILEVER NV D24 #IT 1046-531
Soap bars contg. water-soluble glutamate salts - 12876W/08
UNIL 23.01.76 UNILEVER LTD A97 D25 E11 =CA 1087-956
Low-foaming detergent compsn. contg. alkylphosphoric acid - 50421Y/29
UNIL 10.11.77 LEVER BROTHERS CO D23 (D13) =US 4230-737
Margarine fat based on eighteen carbon fatty acids - 37159B/20
*UNIL 27.03.79 UNILEVER NV D21 *NO 8000-880
Shampoo - C/46
UNIL 03.03.80 UNILEVER NV D25 =GB 2046-293
Inexpensive cool water detergent compsns. - 72005C/41
UNIL 03.03.80 UNILEVER NV D25 =GB 2046-294
Inexpensive cool water detergent compsns. - 72004C/41
*UNON= 18.09.78 UKR NONBLACK ZONE D13 *SU -725-647
Cutter for seed potato tubers - 82039C/46
UPJO 09.04.79 UPJOHN CO B04 D16 =GB 2046-272
Plasmid pUC7 isolated from Streptomyces espinosus strain - 78243C/44
USAS 16.12.75 NAT AERO AND SPACE ADMIN B04 D16 J04 S03 (J03 S01 S05) =CA 1088-157
Electrochemical detection of microorganisms - 43409Y/25
UYFL- 09.01.79 UNIV OF FLORIDA D21 L01 =J5 5126-546
Glass compsn. for forming glass ceramic - 16369C/09
UYVI- 16.12.75 UNIV OF VIRGINIA B04 D16 J04 S03 (J03 S01 S05) =CA 1088-157
Electrochemical detection of microorganisms - 43409Y/25

VAPO- 19.04.79 VAPORTEK INC D22 =DT 3015-045
Dispensing fluid, e.g deodorant, into forced ventilation air duct - 62317C/36
VAPO- 19.04.79 VAPORTEK INC D15 =DT 3015-046
Deodorising vapour dispensing unit for pond surface - 56771C/32
VBEN/ 03.07.78 VON BENNINGSEN-MACK D17 =NL 7915-039
Powder sugar mfr. - 05582C/04
*VELW 23.07.79 VEB LEUNA-WERK W ULBRICH D13 *DL -143-867
Prodn. of catalysts for fat hydrogenation - 80863C/46
VENA- 22.03.79 VER NAHRUNGSMITTEL D11 =DK 8001-246
Ripening yeast for bread prod. - 70036C/40
VENA- 22.03.79 VEREINIGTE NAHRUNGS D11 =NO 8000-823
Ripening yeast for bread prod. - 70036C/40
VENA- 22.03.79 VER NAHRUNGSMITTEL D11 =SW 8001-932
Ripening yeast for bread prod. - 70036C/40
*VITO- 02.08.76 VITOSE CORPA B05 D13 *US 4230-695
Enhancing protein assimilation without drugs - 82498C/46
VNOR/ 09.08.78 VON NORDENSKJOLD R D15 =DS 2834-899
Biological sewage treatment - 13286C/08
*VYRM- 24.04.79 VYRMETODER AB D15 M14 (M25) *WP 8002-281
PPTN. of heavy metals from waste waters - 82609C/46
VYSO- 23.12.75 VYSOKA SKOLA CHEMIC D16 =CA 1088-011
Continuous prodn. of biomass from ethanolic substrates - 49004Y/28

*WENS/ 15.12.76 WENSKE R D14 J01 *DL -143-713
Thermo-catalytic purificn plant for waste gases - 80808C/46
*WESS 25.04.79 WESTFALIA SEPARATOR AG D13 *DT 2916-625
Continuous prodn. of butter - 81009C/46
*WHAL/ 05.01.79 WHALEY B M D14 *US 4230-574
Batch filtering deep fryer oil - 82439C/46
WILK 18.04.72 WILKINSON SWORD LTD B05 D21 =US 4230-688
Alkylcarboxamides in cooling compsns - 67743U/45
WINT 21.03.79 WINTERSHALL AG D15 E19 H03 =DK 7904-776
Treatment of marine oil spills - 75420C/43
WINT 21.03.79 WINTERSHALL AG D15 E19 H03 =NO 7903-398
Treatment of marine oil spills - 75420C/43
WOOD/ 22.01.79 WOODRUFF E A A96 B04 D22 =J5 5125-870
Tissue- and blood-compatible dressings, etc. - 41531C/24
WOOL= 13.03.79 WOOL IND RES INST D22 E21 F06 =GB 2046-288
Reactive azo dyes with antimicrobial activity - 70047C/40
WYNE/ 21.12.76 WYNESS D K D15 #CA 1087-997
Liq. clarification appts. with conical vessel - 29397B/15

YAMA 12.12.78 YAMANOUCHI PHARM KK B02 C02 D16 =DT 2949-065
3-Des:acetoxy:methyl-7-alpha-methoxy:cephalosporin - 50435C/29
YAMA/ 29.01.74 YAMAUCHI A A96 D22 =J5 0103-897
Tampon lubricant prepn. - 81937C/46
*YAMA/ 29.01.74 YAMAUCHI A A96 D22 *J8 0041-210
Tampon lubricant prepn. - 81937C/46
*YARO= 25.08.77 YAROSL MEAT IND MFG D12 *SU -725-641
Prodn. of beef or pork sausage meat - 82033C/46

*ZELI/ 23.01.79 ZELINKA L D15 J01 *CS 7900-517
Waste water synthetic sorbent stripper - C/46
*ZENM- 28.04.79 ZENMI CO LTD A96 D22 *DT 3015-538
Disposable sanitary napkin - 81183C/46
ZINJ 17.01.77 ZINK J CO D15 J02 =CA 1088-230
Liquid aeration by dividing stream into vertical sheets - 36446A/20
*ZUBL- 27.04.79 ZUBLIN E AG D16 *DT 2917-048
Covered refuse compositing building - 81049C/46
*ZUCK- 18.07.79 VVB ZUCKER & STARKE D17 *DL -143-929
Simultaneous cooling, hydration and granulation of dextrin - 80893C/46
*ZUCK/ 05.05.79 ZUCKER F J D16 *DT 2918-212
Opening biological cells to extract contents - 81097C/46

F

790-F BCDE
A 6700-212 Q00
S 3577-464 S19
7 1016-951 S19
S 3714-367 U07
S 3742-038 U28
A -787-965 Q01
U 6716-552 Q01
B 1164-205 Q01
A -790-089 Q01
T 1046-779 C46

G

7779-G CD
E -682-915 Q00
7 0033-769 R43
T 1692-393 T28
U -320-094 T32
L -139-444 U36
H -480-018 Q01
A -808-586 Q01
AU 6607-463 Q01
L 6609-272 Q01
B 1114-547 Q01
I 6600-698 Q01
L --55-218 Q01
US 3525-623 R34
T 1046-626 C46

R

7112-R ADF
DT 1933-270 R05
R 2013-598 R26
ZA 6905-270 S16
GB 1248-513 S39
CA -905-242 T31
J7 2044-390 T46
T 1046-781 C46

9597-R D
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DT 1967-237 B39+
DS 1904-804 C16
DS 1967-237 C46+

S

4125-S AD
BE -753-000 S02
NL 7010-656 S04
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R 2052-121 S29
GB 1286-403 T34
CH -523-662 T34
CA -990-219 X25
NL -152-438 Y15
DT 2065-974 Y28
DS 2035-534 A32
7 1032-005 B39
DS 2065-974 C46

6285-S DE
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NL 7010-395 S04
DT 2034-593 S05
R 2055-133 S32
GB 1257-900 S50
CA -917-584 U02
US 3733-253 U22
7 6044-195 X52
S 2034-593 C46

5362-S D
E -755-303 S08
T 2042-572 S12
A 7005-388 S19
H -507-666 S32
R 2060-967 S37
B 1260-776 T04
A -905-204 T31
T 2042-572 U06
S 3715-216 U08
IL -145-438 W20
7 9000-987 B07
1046-782 C46

20147-S DE
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NL 7013-472 S12
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FR 2061-672 S39
GB 1287-048 T35
CH -528-871 T50
CA -928-139 U27
DS 2044-781 Y44+
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J8 0027-792 C33+
NL 8003-114 C46+

21835-S D
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NL 7013-800 S13
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ZA 7006-313 T32
CA -909-068 T38
GB 1310-348 U12
NL -160-479 B26
DS 2045-988 C46

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BE -757-846 S17
NL 7015-560 S18
DT 2051-766 S19
CA -882-116 S40
FR 2066-377 S44
GB 1332-190 U40
US 3792-041 V08
J7 6014-485 X23
IT 1028-507 B17
DS 2051-766 C46

49657-S BDE
NL 7100-064 S30+
J4 6000-028 S36
BE -761-374 S36
DT 2024-694 S50
FR 2075-327 T03
US 3689-485 T38
GB 1340-911 U51
CH -559-197 W13+
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CH -569-726 X02+
CH -569-727 X02+
CA -994-768 X35+
J7 7030-517 Y35+
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IT 1046-784 C46+

53468-S BCD
DT 2105-189 S33
FR 2078-171 T05
US 3729-381 U19
DT 2105-189 U20
GB 1338-434 U47
CA -952-050 V33
J8 0040-240 C46

T

21590-T D
DT 2046-501 T14
FR 2106-715 T31
CA -909-065 T38
GB 1308-690 U09
IT 1046-783 C46+

22567-T DHJ
BE -773-060 T14
ZA 7106-144 T24
DT 2148-097 T38
NL 7113-254 T38
FR 2127-493 U04
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GB 1363-444 V33
J8 0040-283 C46

24048-T D
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GB 1309-610 U11
CH -537-705 U35
OE 7108-553 W31
DS 2148-626 C46

33854-T D
BE -775-405 T21
DT 2156-067 T22
NL 7115-640 T22
J4 7011-970 T26
FR 2114-706 T43
ZA 7107-628 U31
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CH -563-125 W30
OE 7404-869 Y09
CA 1010-712 Y22+
CA 1012-833 Y28
SW 7700-494 Y31
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J8 0020-865 C27
DS 2158-391 C46

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BE -785-767 U06
FR 2144-848 U17
ZA 7204-397 V11
ZA 7204-396 V11
GB 1389-260 W14+
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OE 7205-812 W23
CA -970-214 W29+
CH -563-724 W34+
SU -499-816 Y36+
IT 1046-785 C46+

19943-U BD
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GB 1385-319 W09+
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US 3907-642 W40+
SW 7601-808 X41+
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J5 2057-394 Y25+
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CH -596-553 A15+
J5 3094-994 A38+
J5 3107-897 A43+
CA 1046-437 B05+
J7 9008-318 B19+
DS 2246-695 C46

23354-U D
NL 7212-748 U17
CH -535-708 U25
FR 2155-984 U30
GB 1406-631 W38
CA -979-801 X01
J4 8044-839 C42
J8 0036-362 C42
J4 8048-379 C46
J8 0040-281 C46

62720-U DE
NL 7301-275 U42
DT 2214-442 U43
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GB 1373-562 V46
US 3935-071 X06
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CH -575-367 X25
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GB 1421-743 X04
GB 1421-744 X04
CA -984-745 X12
US 4153-679 B21
US 4230-688 C46

77904-U BD
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NL 7306-986 U51
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AR -201-193 W40
GB 1437-006 X22
OE 7304-592 X40
SW 7608-007 Y10
CA 1020-461 Y47
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CH -572-964 X15
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CA -998-208 X44
NL 7308-790 V02+
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NL 7313-052 V17
FR 2201-878 V28
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US 3917-819 W47
GB 1439-407 X25
CA 1016-456 Y37
IL --43-310 A09
NL -159-584 B13
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J8 0040-568 C46

19955-V D
FR 2188-408 V11
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23240-V D
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24968-V D
BE -807-495 V14
NL 7401-815 V48
DT 2323-229 V48
FR 2229-212 W09
GB 1434-847 X19
DS 2323-229 C46

30929-V DHJ
DT 2238-794 V17
BE -810-388 V04
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FR 2259-061 W46
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IT 1046-717 C46+

33059-V BCDE
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J4 9066-629 V44
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CH -597-167 A15
J8 0041-227 C46

60426-V D
GB 1363-949 V34
US 3846-560 V46
IL --39-953 W33
CA -985-563 X14
IT 1046-629 C46

69737-V BDE
DT 2314-813 V40
BE -812-697 V41
NL 7403-847 V41
FR 2222-343 W03
J4 9135-946 W09
DL -113-345 W32
GB 1415-486 W48
CH -590-804 Y36
DS 2314-813 Y43
US 4058-571 Y47
CA 1029-748 A18
SU -566-520 A23
CH -601-152 A28
J8 0041-216 C46

69882-V BCDE
DT 2413-222 V40
BE -812-508 V41
NL 7403-672 V41
SW 7403-571 V47
DK 7401-519 V48
FR 2222-098 W03
J4 9123-860 W05
ZA 7401-203 W10
DL -111-282 W19
GB 1405-400 W37
OE 7402-365 X50
CA 1015-200 Y34
IT 1046-854 C46

75796-V CDE
BE -813-764 V44
NL 7404-814 V44
DT 2319-045 V45
SW 7404-859 V50
DK 7402-042 V51
FR 2225-174 W06
DL -111-291 W19
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PT --61-750 W28
DS 2319-045 W35
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US 3922-344 W50
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CA 1025-353 A07
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IT 1046-643 C46

77544-V AD
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DK 7402-176 V52+
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PT --61-819 W20+
ZA 7402-414 W22
J5 0042-696 W24+
OE 7601-392 Y01+
OE 7403-397 Y01+
GB 1465-897 Y09+
IL --44-696 Y12+
CH -597-858 A19+
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DT 2419-887 V48+
US 4110-184 B16
J8 0033-687 C39
IT 1046-789 C46

79317-V D
BE -816-761 V46
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DS 2332-218 W18+
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81267-V D
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CA 1021-696 Y50
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85929-V AD
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13405-W DE
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J8 0040-239 C46

20955-W AD
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DK 7404-289 W25
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PT --62-580 W33
ZA 7405-855 W51
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SU -618-020 B23
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DK 7905-528 C46

24607-W DH
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DK 7404-985 W27
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SF 7800-258 A24
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CH -603-678 A37
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47896-W D
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OE 7700-009 Y22
GB 1519-792 A31+
CH -611-252 B23
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59147-W DEJ
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FR 2261-801 W50
US 3981-698 X40
GB 1460-595 Y01+
IT 1046-994 C46

62610-W BCD
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NL 7502-215 W39+
SW 7502-368 W44+
J5 0129-796 W50+
DK 7500-863 W50+
FR 2262-993 W52
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DL -119-269 X24
PT --63-437 X25+
OE 7501-692 X32
FR 2294-713 X44+
HU T012-412 X47+
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GB 1495-858 Y51+
SU -550-123 A05
CH -602-919 A37+
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IT 1046-878 C46+

69142-W D
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80236-W DE
BE -829-163 W49+
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J5 1004-122 X09+
FR 2271-192 X10+
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BR 7503-032 X18+
GB 1501-513 A07+
IT 1038-198 C10+
CA 1088-096 C46+

81470-W D
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DK 7503-149 X17
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GB 1502-893 A10
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NL -160-598 B26
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HU T017-205 B45
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X

00736-X D
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J8 0040-319 C46

07809-X D
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FR 2277-191 X17+
US 4008-156 Y08
GB 1513-752 A23
CA 1048-420 B09
IT 1046-738 C46

22927-X ADE
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FR 2284-704 X26
DS 2539-671 X49
CH -599-391 A24
GB 1523-294 A35
IT 1046-919 C46

24412-X BCD
BE -833-441 X14+
NL 7510-865 X15+
DT 2541-459 X15+
DK 7504-172 X25+
J5 1057-572 X27+
FR 2285-132 X27+
DS 2541-459 A04+
GB 1504-029 A11
NL -155-716 A11+
CA 1043-625 A51+
US 4211-781 C30+
IT 1046-968 C46+

24791-X BCDE
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BE -833-452 X14+
NL 7510-886 X14+
SW 7510-274 X19+
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FR 2284-323 X26+
J5 1056-491 X27+
ZA 7505-856 X44
DL -122-543 X50+
US 4028-373 Y24+
J5 2083-694 Y34+
CS 7505-959 A01+
GB 1511-340 A20+
HU T014-928 A23+
IL --48-009 A28+
SU -582-767 A43+
DS 2534-689 B10+
CA 1062-262 B39+
CH -616-427 C16+
IT 1046-896 C46+

24867-X D
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FR 2284-287 X26
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GB 1516-733 A27
CA 1059-818 B34
IT 1046-975 C46

27238-X BDE
J5 1023-300 X15
J8 0040-596 C46

60181-X DE
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FR 2298-510 X48
GB 1537-823 B02
CA 1088-040 C46

69417-X CDEF
J5 1086-104 X37
J8 0040-562 C46

75687-X AD
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BR 7601-781 X45
J5 1119-085 X49
FR 2305-290 Y04
DS 2512-994 A28
CA 1087-908 C46

80578-X BD
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J5 1123-819 X50
DK 7601-648 Y01
FR 2307-268 Y06
SW 7604-097 Y10
ZA 7601-751 Y17
US 4059-685 Y48
GB 1527-264 A40
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DT 2660-445 B49
US 4180-383 C02+
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CA 1077-392 C22
CA 1083-934 C36
DK 8001-216 C46

89168-X DE
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J5 1135-172 Y02
J5 2005-959 Y09
FR 2324-581 Y25+
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GB 1539-441 B05+
DS 2621-524 B21+
J8 0041-159 C46

90877-X DFJ
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US 4147-101 B15
DS 2616-517 C46

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J5 1147-615 Y05
DK 7602-487 Y08
FR 2324-767 Y25
ZA 7603-149 Y26
SW 7606-377 Y31
DL -126-671 Y45
GB 1510-590 A19
DS 2625-028 A21
HU T016-721 B29
IL --49-671 B34
CS 7603-663 C08
IT 1038-741 C11
CA 1087-820 C46

96238-X ABD
BE -842-769 X52+
NL 7606-211 Y01+
DT 2625-544 Y01+
DT 2625-471 Y01+
J5 1148-089 Y05+
FR 2314-196 Y13+
FR 2314-195 Y13+
GB 1517-813 A28+
GB 1518-746 A30+
OE 7604-204 A40+
CA 1088-008 C46+

Y

01222-Y AD
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J8 0040-566 C46

03916-Y DE
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DT 2628-716 Y04+
J5 2003-836 Y08+
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[illegible] 7706-872 B22+
CH -618-343 C34+

CA 1088-066 C46+

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FR 2317-003 Y16
BR 7604-485 Y32
GB 1501-308 A07
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US 4230-807 C46

09156-Y ADEG
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NL 7612-061 A20+
DT 2649-857 A20+
J5 3057-230 A26+
GB 1519-379 A30+
CA 1088-012 C46+

09298-Y ADJ
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NL 7608-257 Y08
DT 2633-812 Y08
J5 2016-486 Y12
FR 2322-637 Y23
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IL --50-135 B32
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CA 1076-427 C20
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DK 7603-402 Y16
FR 2319-399 Y19
J5 2056-087 Y25
BR 7604-920 Y34
GB 1544-867 B17
CH -617-863 C29
CA 1088-007 C46

09621-Y D
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NL 7608-341 Y08
US 4107-938 B11
GB 1561-692 C09
DS 2534-131 C46

10791-Y ADE
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CA 1088-088 C46+

15294-Y AD
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J8 0041-160 C46

18217-Y D
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NL 7612-303 Y21
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FR 2330-654 Y32
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GB 1521-227 A33
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CA 1087-995 C46

22787-Y ACDE
J5 2021-323 Y13
J8 0040-561 C46

26491-Y BD
NL 7610-801 Y15+
DT 2643-829 Y16+
J5 2057-316 Y25+
FR 2325-934 Y26+
SW 7610-683 Y41+
US 4157-280 B25
GB 1571-196 C46+
GB 1571-197 C46+
GB 1571-198 C46+

31895-Y D
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J8 0040-238 C46

32984-Y D
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FR 2329-248 Y31
CH -602-087 A33
GB 1535-066 A49
DS 2549-114 C46

36068-Y ADE
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ZA 7605-516 Y38
J5 3137-875 B02+
J5 3138-987 B03+
GB 1578-901 C46+

36507-Y BDE
DT 2462-519 Y21+
DS 2462-519 C46+

41678-Y AD
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NL 7613-715 Y26
DT 2655-551 Y26
SW 7613-353 Y29
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SF 7603-531 Y34
DK 7605-535 Y35
FR 2334-698 Y39
ZA 7606-374 Y43
BR 7608-222 Y50
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CH -602-810 A37
OE 7609-113 B09
DS 2655-551 C04
US 4201-824 C20+
GB 1578-930 C46

42362-Y ABDG
J5 2054-511 Y24
J8 0041-194 C46

43409-Y BDJ
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J5 2102-491 Y40
FR 2335-602 Y42+
BR 7608-463 Y51+
GB 1520-733 A32+
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CA 1088-157 C46+

49004-Y D
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SW 7611-876 Y31+
SF 7603-126 Y38+
FR 2336-476 Y43+
DL -126-959 Y45+
CS 7601-436 Y47
CS 7508-812 A41
GB 1543-399 B14+
OE 7607-945 C31+
CA 1088-011 C46+

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NL 7700-714 Y32
SW 7700-675 Y35
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SF 7700-059 Y42
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ZA 7700-342 A38
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CA 1087-956 C46

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50667-Y AD
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FR 2336-115 Y43
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CA 1087-801 C46

51909-Y CDEF
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CA 1087-977 C46+

52643-Y D
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IT 1046-868 C46

55836-Y BDE
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DK 7701-581 A01
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BR 7702-202 A32
GB 1560-757 C06
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56120-Y D
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J5 2096-772 Y38
FR 2339-342 Y46+
ZA 7700-242 Y50
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GB 1577-336 C43+
CA 1087-905 C46+

57224-Y DF
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GB 1578-941 C46+

57572-Y D
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GB 1579-177 C46

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OE 7704-206 A22+
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SW 7707-171 B06+
FR 2395-311 B13+
DT 2759-821 C32+
US 4230-806 C46+

59354-Y BCD
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NL 7701-255 Y35
DT 2605-469 Y38
J5 2099-209 Y39
DK 7700-593 Y44
FR 2340-955 Y48
OE 7700-928 A48
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GB 1567-547 C20
IL --51-412 C42
CA 1087-982 C46

61428-Y ADEJ
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J5 2102-090 Y40+
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GB 1503-879 A11+
CA 1087-968 C46+

62691-Y ADF
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BE -858-846 A13+
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SW 7710-486 A18+
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J5 3038-186 A20+
DK 7704-139 A21+
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FR 2364-661 A24+
SF 7702-472 A24+
PT --66-999 A44+
DL -132-847 B03+
IL --52-654 B48+
CA 1087-952 C46+

64959-Y BCD
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DK 8000-665 C39
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65315-Y AD
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68573-Y AD
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CA 1087-957 C46

69259-Y DE
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OE 7702-192 C23
HU T018-257 C24
GB 1571-075 C46

75936-Y D
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DT 2727-881 A02+
NL 7706-858 A03+
DK 7702-628 A11+
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FR 2387-686 B04
CH -611-809 B29+
OE 7704-323 B31+
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CA 1082-573 C33+
GB 1578-979 C46+

75942-Y BCD
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DK 7702-694 A10
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76152-Y ABDF
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GB 1571-108 C46

76739-Y D
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DT 2728-649 B04+
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GB 1566-646 C19+
CA 1087-978 C46+

79402-Y D
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GB 1573-907 C35
US 4230-563 C46

81383-Y D
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CA 1087-907 C46+

82910-Y ADG
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CA 1087-989 C46

85161-Y CD
GB 1493-215 Y48
US 4082-859 A21
ZA 7706-770 A42+
IL --49-753 B08
FR 2409-704 B36+
CA 1087-810 C46

88592-Y D
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DS 2725-665 B15
GB 1550-330 B33
US 4230-455 C46

90091-Y D
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DT 2736-838 A09+
NL 7708-861 A10+
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OE 7705-920 B26+
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A

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DT 2759-597 B24
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02306-A D
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DS 2627-016 C46

02523-A AD
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CA 1088-056 C46

02582-A D
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FR 2355-457 A14
ZA 7703-667 A25
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GB 1571-156 C46

04071-A AD
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SW 7803-350 A44
DK 7801-316 A45
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SF 7800-899 A51
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BR 7801-765 B04
PT --67-793 B14
J5 5127-415 C46

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NL 7707-396 A05
SW 7707-946 A08
FR 2357-480 A15
CA 1087-829 C46

06512-A DE
DT 2630-835 A04
NL 7707-653 A05
FR 2357-514 A15
GB 1578-804 C46

06705-A ADF
DT 2731-080 A04
FR 2358-499 A16
J5 3038-796 A21
GB 1578-951 C46

07742-A D
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SW 7707-540 A06+
J5 3003-568 A08
J5 3012-464 A11
J5 3111-307 A44
US 4157-405 B25+
GB 1578-986 C46+

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GB 1579-073 C46

08677-A D
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SW 7608-391 A10
US 4170-797 B43
CA 1088-227 C46

12290-A BD
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SW 7709-112 A12
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DK 7703-576 A16
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DS 2636-206 A35
BR 7705-326 B13
ZA 7704-855 B20
GB 1557-645 B50
US 4182-655 C03
CA 1088-009 C46

12609-A D
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NL 7708-074 A08+
FR 2360-258 A18+
ZA 7704-501 A29
GB 1545-333 B19+
US 4194-011 C13+
CA 1087-910 C46

15969-A D
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NL 7709-148 A19
ZA 7704-181 A25
J5 3052-652 A25
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GB 1554-480 B43
J8 0001-782 C07
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IL --52-405 C31
US 4230-738 C46+

18065-A BDJ
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CA 1085-278 C40
GB 1579-040 C46

18159-A DH
DT 2739-428 A10+
BE -858-346 A10+
NL 7709-568 A11+
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J5 3030-484 A18+
DK 7703-730 A19
ZA 7705-279 A34
DL -132-121 A43+
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US 4230-562 C46+

21474-A D
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25507-A D
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30279-A DE
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33772-A BDG
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IL --53-325 C43+
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B 1571-257 C46

2326-A ADEJ
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SF 7800-046 A38
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53794-A D
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GB 1544-995 B17
US 4200-610 C19
DS 2800-437 C44
CA 1088-013 C46

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SF 7703-299 A43+
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NL 7801-262 A34+
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SF 7800-354 A43+
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DK 7802-576 B06
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J5 4008-789 B09

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69235-A D
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FR 2383-614 A51
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DT 2828-369 B03
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J5 4013-694 B10
FR 2395-740 B14
BR 7804-126 B21
SW 7807-436 B25
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80436-A D
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FR 2387-681 B04
CA 1087-912 C46

82125-A BDE
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US 4169-942 B41
CA 1088-080 C46

82126-A BD
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NL 7805-002 A48+
J5 3139-793 B03
FR 2390-455 B07+
DK 7804-954 B25
J5 4066-604 B27
SW 7811-491 B27
GB 1554-849 B44+
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82148-A AD
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82876-A CDE
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84285-A D
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86808-A D
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J5 4143-515 B51
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DL -143-629 C46

06439-B D
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DT 2902-320 C32+
FR 2447-190 C46+

08012-B ADE
BE -869-281 B05+
GB 2001-654 B06
NL 7807-934 B07+
DT 2832-577 B07+
DK 7803-332 B11
FR 2398-754 B18
J5 4044-089 B20+
BR 7804-825 B21
DL -137-248 B43+
FR 2430-976 C17+
CA 1088-010 C46+

09089-B ADF
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J8 0040-231 C46

10777-B ADEF
J5 3147-803 B06
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11786-B BCD
US 4137-224 B06
US 4230-799 C46

17132-B DM
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J8 0040-652 C46

25830-B D
US 4112-125 B13
CA 1087-904 C46

25900-B D
WP 7900-150 B13+
BR 7808-690 B35+
GB 2023-661 C01+
EP ---7-356 C06+
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FR 2447-143 C46+

29397-B D
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CA 1087-997 C46+

29917-B D
DT 2744-950 B16
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37159-B D
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37255-B ADG
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SF 7803-312 B30
BR 7807-167 B30
PT --68-540 B49
ZA 7806-147 B51

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38814-B D
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40565-B D
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US 4230-066 C46

40655-B BCD
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GB 2013-239 B32+
NL 7900-513 B33+
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J5 4110-310 B41
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42594-B DE
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GB 1578-865 C46+

44408-B D
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GB 2008-961 B24+
DK 7805-322 B29
US 4230-570 C46

46290-B DFJ
J5 4058-270 B25
DT 2915-677 C46+

47042-B D
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SW 7811-986 B28
FR 2409-234 B35
CA 1088-228 C46+

53495-B D
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J8 0040-285 C46

54767-B ADEF
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BE -873-529 B30
GB 2014-157 B34
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J5 4103-455 B38
FR 2424-306 C07
DS 2801-817 C19
US 4230-812 C46

58814-B D
J5 4080-497 B32
J8 0040-235 C46

59716-B ADJ
US 4162-216 B32
ZA 7901-805 C21+
DT 2916-121 C44+
BR 7902-433 C46+

60144-B AD
DT 2902-173 B33
J5 4113-441 B42
FR 2416-016 B46
US 4230-478 C46

60573-B D
J5 4084-353 B33
J8 0040-314 C46

61398-B D
US 4162-693 B33
BE -875-599 B43+
ZA 7901-719 C21+
DT 2915-097 C43+
NL 7902-817 C44+
BR 7902-248 C46+
GB 2046-069 C46+

61704-B BDJ
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GB 2014-155 B34
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FR 2417-105 B47
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61831-B BCD
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DK 7900-435 B38+
DT 2902-889 B40+
J5 4117-781 B43+
SF 7900-335 B43+
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OE 7900-735 C23+
DL -143-555 C46+

63417-B D
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GB 2014-430 B35
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DK 7900-687 B40
FR 2417-258 B48
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63933-B ADEG
J5 4091-962 B35
J8 0040-315 C46

65025-B BCD
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DK 7900-650 B40+
FR 2417-514 B48
J5 5068-292 C27+
FR 2447-400 C46+

65802-B CD
NL 7901-177 B36
GB 2014-976 B36
FR 2417-483 B48
J5 4157-771 C04
US 4230-451 C46

66409-B D
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DL -143-852 C46+

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68460-B ADE
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BR 7901-558 B44+
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DT 2948-921 C46+

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US 4230-663 C46

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PT --69-674 C05
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DL -143-729 C46

79418-B AD
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81224-B BDJ
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DT 2917-004 B47
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82559-B ABD
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GB 2020-668 B47
NL 7903-789 B48
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SW 7904-161 C02
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ZA 7902-249 C28
DL -143-730 C46

83451-B CD
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J8 0040-221 C46

84203-B D
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SW 7906-068 C10
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84723-B DE
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85938-B BDE
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90077-B D
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02098-C D
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DK 7902-797 C10
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03790-C CDEF
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GB 2025-951 C05+
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05582-C D
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DK 7902-229 C10
SF 7901-731 C12
BE T000-080 C37
SW 8005-812 C45
NL 7915-039 C46

12692-C DEGJ
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DT 2856-761 C30+
J5 5102-415 C37+
FR 2447-219 C46+

13286-C D
DT 2834-899 C08
DT 2857-345 C15
DS 2834-899 C46

16369-C DL
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GB 2041-349 C37
FR 2446-262 C44
J5 5126-546 C46

16880-C D
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DT 2837-002 C10
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24041-C BD
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GB 2031-457 C17+
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SW 7907-581 C20+
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27661-C BD
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J5 5048-390 C20
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US 4230-591 C46+

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BE -880-537 C17+
NL 7908-918 C26+
DT 2949-759 C26+
PT --70-568 C28+
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SW 7910-139 C31+
DK 7905-242 C32+
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GB 2038-353 C43+
US 4230-590 C46

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PT --70-577 C28
GB 2038-303 C30
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31905-C AD
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36987-C BD
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DK 8000-178 C41
SF 8000-423 C43
BR 8000-503 C44
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DK 8000-263 C37
GB 2041-377 C37
SW 8000-449 C43
J5 5125-870 C46

43298-C D
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NL 8000-353 C33
GB 2042-320 C39
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46266-C D
BE -881-748 C27
PT --70-816 C36
NL 8000-973 C43
DT 3005-243 C44
GB 2046-291 C46

48184-C BCD
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PT --70-556 C28+
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FR 2444-467 C41+
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SW 8001-235 C41
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DK 8000-738 C42
GB 2044-258 C42
BR 8001-025 C46

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SW 8005-856 C45
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53808-C ADE
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DK 8000-046 C46+

55227-C CDE
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55238-C D
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GB 2040-167 C35
FR 2447-221 C46

55239-C DE
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FR 2447-349 C46

55240-C ADE
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DT 3002-878 C33
GB 2040-683 C36
J5 5102-509 C38
FR 2447-189 C46

55257-C DE
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DT 3010-590 C42
DK 8001-228 C46
NO 8000-843 C46
SW 8002-189 C46

55384-C D
DT 2903-008 C32
BE -881-348 C32
NL 8000-189 C33
SW 8000-569 C37
GB 2044-115 C42
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DT 3002-058 C32
FR 2447-142 C46

55501-C CDFM
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55515-C AD
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GB 2040-688 C36
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GB 2045-596 C45+
FR 2447-154 C46+

56771-C D
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56933-C D
BE -882-468 C33
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SW 8001-662 C46

56944-C D
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57115-C D
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FR 2447-226 C46

57362-C AD
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J5 5127-413 C46+

57382-C D
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BR 8000-430 C42
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58620-C AD
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NL 7908-619 C39+
DT 3006-333 C39+
J5 5118-999 C43+
GB 2046-295 C46+

59058-C AD
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60834-C D
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DK 8000-166 C46+

60858-C D
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DK 8000-561 C46
BR 8000-802 C46

60918-C D
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62317-C D
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62318-C D
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62324-C ADG
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DT 3015-463 C45
NL 8002-256 C46

62714-C D
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GB 2046-235 C46

62727-C BD
DT 3005-060 C36
NL 8001-106 C37
GB 2043-101 C40
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62781-C BCDE
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J5 5113-765 C42
BR 8001-094 C46

63936-C D
US 4217-666 C36
DT 3013-155 C44
GB 2046-100 C46

64215-C D
BE -882-950 C37
DT 2916-468 C45+
NL 8002-392 C46

64217-C ADEM
BE -882-969 C37
NL 8002-394 C46
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64694-C BCD
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DK 8000-669 C46

65356-C BD
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J5 5113-718 C42
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65963-C BCD
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DK 8000-948 C44
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66376-C D
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BR 8001-075 C46

67666-C D
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GB 2046-237 C46

70008-C D
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SW 7902-652 C46
GB 2046-112 C46

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GB 2046-288 C46

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DK 8001-199 C46

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DK 8001-203 C46

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DK 8001-169 C46

71712-C D
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DK 8001-240 C46

71715-C CDE
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BR 8000-908 C46

71801-C DJ
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NL 8001-303 C42+
SW 8000-739 C46+

71812-C D
DT 3008-675 C41
NL 8001-641 C41
DK 8001-245 C46
SW 8001-967 C46
GB 2046-071 C46

71817-C D
DT 3009-156 C41
NL 8001-527 C41
GB 2045-051 C44
DK 8001-180 C46

71850-C BD
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J5 5127-318 C46

71863-C BD
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J5 5127-448 C46

71919-C DLM
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J5 5127-307 C46+

71955-C DE
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DT 2911-665 C41
J5 5126-511 C46

71998-C ADHJ
EP --16-546 C41+
J5 5112-201 C41+
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71999-C D
EP --16-552 C41
DK 8000-835 C43
US 4230-685 C46

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GB 2046-294 C46+

72005-C D
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GB 2046-293 C46+

72038-C DE
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DK 8001-195 C46

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SW 8002-357 C46
GB 2046-209 C46

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73819-C DE
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GB 2045-748 C45+
J5 5127-196 C46

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75420-C DEH
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77304-C D
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79256-C CD
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79341-C BCDG
EP --18-137 C45
WP 8002-293 C46

79375-C BD
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WP 8002-294 C46

79381-C BD
EP --18-218 C45+
WP 8002-229 C46+

79412-C DM
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PT --70-109 C15
DT 2934-675 C46

80713-C CD
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HU T017-879 C16

80714-C DEJ
BE -883-046 C46

80739-C D
BE -884-168 C46

80741-C AD
BE -884-181 C46+

80748-C D
BE -884-194 C46

80753-C AD
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80754-C DE
CA 1087-955 C46

80763-C D
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80764-C D
DL -143-557 C46

80775-C DE
DL -143-594 C46

80778-C BCDE
DL -143-610 C46

80800-C D
DL -143-696 C46

80808-C DJ
DL -143-713 C46

80809-C D
DL -143-723 C46

80810-C CD
DL -143-724 C46

80823-C DE
DL -143-757 C46

80824-C DHJ
DL -143-758 C46

80827-C D
DL -143-761 C46

80842-C D
DL -143-791 C46

80843-C DJ
DL -143-792 C46

80844-C BCD
DL -143-793 C46

80845-C BCD
DL -143-794 C46

80846-C D
DL -143-795 C46

80856-C CD
DL -143-853 C46

80863-C D
DL -143-867 C46

80872-C DE
DL -143-894 C46

80873-C D
DL -143-895 C46

80874-C DEJ
DL -143-896 C46

80875-C DEJ
DL -143-897 C46

80888-C DH
DL -143-922 C46

80889-C D
DL -143-923 C46

80890-C BD
DL -143-925 C46

80892-C D
DL -143-928 C46

80893-C D
DL -143-929 C46

80912-C D
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80925-C CD
DL -144-047 C46

80940-C DE
DL -144-073 C46

80941-C D
DL -144-074 C46

80976-C CD
DT 2915-762 C46+

80981-C DEJ
DT 2915-953 C46

80987-C CDE
DT 2916-318 C46

80995-C D
DT 2916-416 C46

80997-C DE
DT 2916-418 C46

80998-C D
DT 2916-432 C46

81006-C D
DT 2916-564 C46

81007-C DEJ
DT 2916-585 C46

81009-C D
DT 2916-625 C46

81016-C D
DT 2916-654 C46

81017-C ADE
DT 2916-656 C46

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81052-C D
DT 2917-086 C46

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DT 2917-272 C46

81076-C AD
DT 2917-446 C46

81077-C D
DT 2917-525 C46

81095-C CD
DT 2918-180 C46

81097-C D
DT 2918-212 C46

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NL 8001-965 C46

81120-C D
DT 3011-106 C46+

81122-C BD
DT 3012-665 C46

81132-C D
DT 3013-904 C46

81134-C BD
DT 3014-001 C46+

81145-C DHJM
DT 3014-678 C46

81149-C DJ
DT 3014-839 C46

81182-C DLM
DT 3015-529 C46

81183-C AD
DT 3015-538 C46

81214-C DE
DT 3016-111 C46

81227-C D
FR 2439-587 C46

81228-C D
FR 2447-147 C46

81229-C D
FR 2447-148 C46

81230-C D
FR 2447-149 C46+

81231-C D
FR 2447-150 C46

81232-C D
FR 2447-151 C46

81233-C AD
FR 2447-153 C46
PT --70-718 C32

81270-C D
GB 1571-224 C46

81271-C D
GB 1571-251 C46

81287-C D
GB 2046-070 C46

81288-C D
GB 2046-072 C46+

81289-C D
GB 2046-073 C46

81290-C D
GB 2046-076 C46+

81295-C D
GB 2046-110 C46+

81301-C D
GB 2046-164 C46

81316-C ADE
GB 2046-321 C46

81377-C DM
J5 5125-282 C46

81401-C DE
J5 5125-807 C46

81403-C AD
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81507-C DEJ
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508-C DEJ
5126-527 C46

582-C D
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590-C D
5127-110 C46

591-C D
5127-111 C46

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598-C D
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5127-130 C46

607-C DE
5127-132 C46

608-C DE
5127-133 C46

618-C ADEK
5127-143 C46

622-C D
5127-190 C46

626-C CD
5127-306 C46

627-C AD
5127-308 C46

628-C BD
5127-309 C46

629-C DE
5127-310 C46

630-C AD
5127-311 C46

531-C AD
5127-312 C46

532-C AD
5127-313 C46

570-C BD
5127-398 C46

574-C AD
5127-402 C46

28-C DE
5127-496 C46

29-C DE
5127-497 C46

30-C DE
5127-498 C46

31-C DE
5127-499 C46

32-C ADE
5127-500 C46

50-C AD
5127-952 C46

51-C D
5127-955 C46

52-C CD
5127-958 C46

81753-C CD
J5 5127-960 C46

81754-C D
J5 5127-962 C46

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81756-C DE
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81759-C D
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81762-C BD
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81764-C DEJ
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81765-C D
J5 5128-000 C46

81781-C ADJ
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81876-C CD
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J5 0148-181 C46

81877-C CD
J8 0040-222 C46
J5 0034-950 C46

81878-C D
J8 0040-236 C46
J5 0013-598 C46

81883-C DJ
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J5 0056-376 C46

81919-C D
J8 0041-124 C46
J5 1105-670 C46

81920-C D
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J5 2135-461 C46

81921-C D
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J5 2134-254 C46

81922-C D
J8 0041-127 C46
J5 2087-858 C46

81923-C D
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J5 1097-867 C46

81936-C BCD
J8 0041-208 C46
J5 0052-222 C46

81937-C AD
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J5 0103-897 C46

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SU -724-453 C46

81963-C D
SU -724-456 C46

81973-C DEH
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81974-C ADEH
SU -724-705 C46

82002-C D
SU -724-987 C46

82015-C D
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82035-C AD
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82036-C CD
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82037-C CDF
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82038-C D
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82191-C DE
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82192-C DE
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82264-C ABDJ
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82270-C D
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82289-C D
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82386-C ADJ
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82410-C D
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82411-C D
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82434-C DJ
US 4230-564 C46+

82436-C D
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82439-C D
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82441-C D
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82442-C D
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82444-C D
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82450-C D
US 4230-592 C46

82451-C AD
US 4230-593 C46+

82480-C DE
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82488-C D
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82493-C ABCD
US 4230-687 C46+

82494-C D
US 4230-689 C46

82498-C BD
US 4230-695 C46

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US 4230-728 C46

82516-C DE
US 4230-730 C46+

82517-C CD
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82540-C BD
US 4230-797 C46+

82541-C BCD
US 4230-799 C46+

82542-C D
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82558-C ADH
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82588-C D
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DS 2065
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DS 2323
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DS 2462
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DS 2534
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CENTRAL PATENTS INDEX

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Section D:

FOOD
DETERGENTS

ABSTRACTS

INDEXES

- **II - PATENTEE**
- **V - BASIC NUMBER**
- **VII - PATENT NUMBER**

COUNTRY	PUB DATE(S)	NUMBER RANGE
BELGIUM		
-Delayed	3 NOV - 9 NOV 80	883,079 - 883,153
-Non Delayed	3 NOV 80	884,204 - 884,326
BRAZIL	7 OCT 80	7,801,534 - 8,000,480
CANADA	28 OCT 80	1,088,251 - 1,088,700
SWITZERLAND	15 OCT + 31 OCT 80	607,603 - 616,821 619,580 - 620,077
CZECHOSLOVAKIA	31 JUL 80	7,903,348- 7,909,591
DENMARK	27 OCT 80	7,805,370 - 8,002,374
W.GERMANY		
-DAS	13 NOV 80	1,767,715 - 3,010,299
-OLS	13 NOV 80	2,605,798 - 3,018,324
EUROPE		
-Unexamined	12 NOV 80	18,357 - 18,964
-Granted	12 NOV 80	0,156 - 8,368
FRANCE*	29 AUG 80 (BOPI 3 OCT 80)	2,447,667 - 2,448,276
UNITED KINGDOM**	19 NOV 80	1,579,231 - 1,579,710 2,046,561 - 2,047,060
ISRAEL	26 OCT 80	30,225 - 59,757
JAPAN		
-Unexamined		47,035,074 - 55,028,759
	4 OCT - 11 OCT 80	55,128,453 - 55,131,131
-Examined	23 OCT - 29 OCT 80	80,041,241 - 80,042,320
NETHERLANDS	3 NOV - 9 NOV 80	7,903,388 - 8,002,597
NORWAY	27 OCT 80	7,900,050 - 8,002,049
PORTUGAL	30 OCT 80	67,360 - 71,178
SOVIET UNION	--	725,190 - 727,690
SWEDEN	3 NOV 80	7,812,114 - 8,006,796
UNITED STATES		
-Reissues	4 NOV 80	Re30,424 - Re30,431
-Defensives	4 NOV 80	T100,001
-Patents	4 NOV 80	4,231,117 - 4,232,401
SOUTH AFRICA***	OCTOBER 80	7,806,227 - 8,005,634

*Printed patents actually published early October - late October, 1980

**Includes 133 specifications omitted from Week C30

***Includes numbered Basics from Week C39

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Arrangement of Abstracts

See Appendix I for definition of 'Major' and 'Minor' Countries.

'MAJOR' COUNTRIES – An alerting abstract of every basic and examined equivalent document is provided except for equivalents from Canada, East Germany and Switzerland. The abstracts are arranged in CPI class order and within any one of the 135 classes are in country and patent number order.

'MINOR' COUNTRIES – Basic headings are included in sequence with the entries from the 'Major' countries.

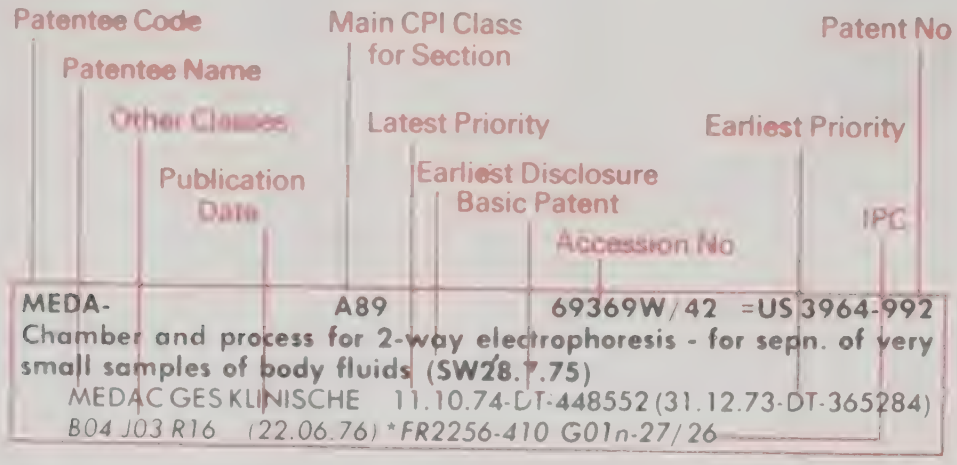
CPI Section Headings

See inside cover for further details.

A	Polymer Chemistry	F	Textiles, Paper, Cellulose
A+	Polymer Applns.	G	Printing, Coating, Photographic Chemistry
AE	Polymer & General Chemistry		
B	Pharmaceuticals	H	Petroleum
C	Agricultural Chemistry	J	Chemical Engineering
D	Food, Disinfectants, Detergents	K	Nucleonics, Explosives, Protection
E	General Chemistry	L	Refractories, Ceramics
E+	General Chemistry Applns.	M	Metallurgy

Typical Abstract Heading

See CPI/WPI Instruction Manual No. 1A for explanation of the various flagged descriptors.


Patentee Code
Patentee Name
Other Classes
Publication Date
Main CPI Class for Section
Latest Priority
Earliest Disclosure
Basic Patent
Accession No
Patent No
Earliest Priority
IPC

MEDA- A89 69369W/42 =US 3964-992
Chamber and process for 2-way electrophoresis - for sepn. of very small samples of body fluids (SW28.7.75)
MEDAC GES KLINISCHE 11.10.74-DT-448552 (31.12.73-DT-365284)
*B04 J03 R16 (22.06.76) *FR2256-410 G01n-27/26*

Copies of Specifications may be ordered from our PATENTS SUPPLY DIVISION.

D1: FOOD; FERMENTATION

D11 : BAKING

ISP D11 49447 B/27 =DS 2856-195
oodle dough paste - in sandwich layers with differing specified arch and albumin content
NISSIN SHOKUHIN KAISHA 27.12.77-JA-160628 (27.12.77-JA-160627)
*(13.11.80) *DT2856-195 A23l-01/16*

he ratio of the amt. of starch to albumen in each outer ayer of a prod. made from dough is considerably greater han in each of the inner layers. The prod. has a multi-ayer form having between a pair of outer layers, ≥ 1 andwich-type, embedded inner layer and all the layers ontain wheat flour.

Multi-layer noodles can be mass produced economicaly without danger of their breaking up, in the raw, dried or cooked state and they can be prepd. for eating very quickly by means of hot water. 27.12.78 as 856195 (8pp).

SCKH ★ D11 82774 C/47 ★DT 2918-167
Continuous dough prodn. from cooled oil-water emulsion - with gas addn. before injection to kneader with flour and further simple water addns. to the kneader
SCHRODER & CO 05.05.79-DT-918167 (00.00.73-DT-321266)
(13.11.80) A21d-08/02

Dough is made by the continuous blending of flour, fat, water and additives esp. air. An emulsion is prepared of water in oil or fat and this is mixed and cooled with injection of air. The cooled mixture is then fed into the dough mixer or kneader to which flour is continuously metered.

Water is also added directly to this kneader at one or more locations at a temp. above 1° Celsius The emulsion is cooled to a temp. below the melting pt. of the fat or oil and the kneading operation is kept below this temp.

For dough making prior to baking. By keeping some of water out of the emulsion, this becomes more stable and oiling out in the dough is avoided giving a better product. 5.5.79 as 918167 Add to 2321266 (12pp1053).

FAZE- ★ D11 C/47 ★SW 8002-510
Transporter for biscuit icing process - comprises parallel endless wires, and moves biscuits between icing position and discharge station for further processing
OY KARL FAZER AB 03.04.79-SF-001101
(03.11.80) A23g-03/20

The plant is for icing biscuits, and comprises an icing position and a release station. A transporter runs between the two locations, and comprises parallel endless wires.

The icing is applied to the underside of the biscuits on the transporter, and in the release station they are turned up and down before being transferred to a further transporter for additional processing. 1.4.80 as 002510 (1pp1161).

NADR- ★ D11 84099 C/47 ★US 4231-470
Conveyor passing through two separate zones - in which relative length of conveyor in each zone is adjustable
NAT DRYING MACHINER 21.11.77-US-853310
Q35 (04.11.80) B65g-21/14

A conveyor system transports containers through two separate treatment zones. In each zone the conveyor passes around a series of upper and a series of lower sprockets. The length of the conveyor in each area can be adjusted by a device which moves some but not all of the lower sprockets.

Reduction of the length of conveyor in one zone increases its length in the other zone so that at a given conveyor speed the ratio of time of a container within the first zone to that in the second zone can be varied.

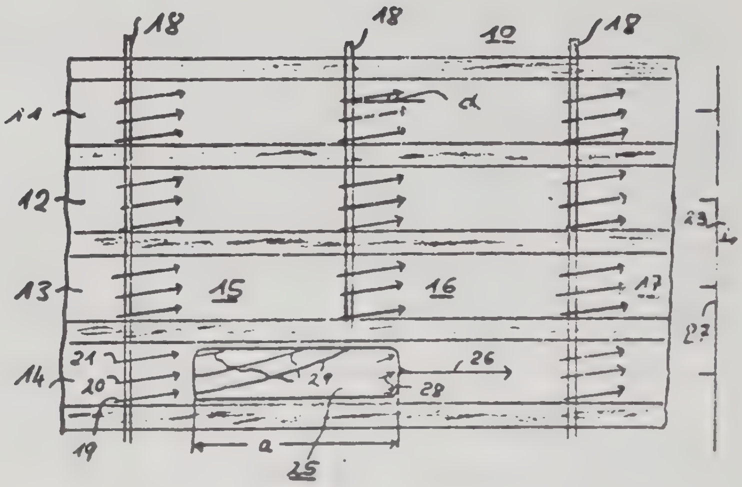
The system is particularly described for passage of dough-carrying pans through a proofer and an oven. The relative times within the two zones can be varied. 21.11.77 as 853310 (8pp295)

D12 : MEAT; FISH PROCESSING

KORB/ ★ D12 82814 C/47 ★DT 2918-971
Sausage skin cutting machine - has knives inclined to travel direction at intervals equal to sausage length
KORBER E 11.05.79-DT-918971
P62 (13.11.80) B26d-03/12

The machine cuts through a sausage skin by means of knives from outside, the sausage being pulled underneath them in the lengthwise direction. There are a number of cutter units (15, 16, 17) spaced apart fro a distance (a) equal to the sausage length, and with knives (19, 20, 21) inclined to the travel direction.

The sausage (25) is pulled below them in succession and caused to turn in the process, the angle (a) at which all knives are inclined being the same and such as to turn the sausage through 360 deg.



11.5.79 as 918971 (8pp160).

BAXT D12 24818 V/13 =J8 0041-747
Meat tenderisation - by injection with aqueous enzyme soln. contg. tragacanth
BAXTER LABS INC 21.12.71-US-210553
*(25.10.80) *US3798-334 A23l-01/31*

Method comprises intramuscularly injecting the prerigor meat to a level of 1-4% dressed wt.with an aq. soln.contg. 0.1-0.4% by wt. tragacanth soln. and sufficient enzyme pro

-duct to provide a proteolytic enzyme activity of 0.01-0.05. M.C. unit per g. A synergistic effect upon the enzyme distribution and meat tenderisation is obtained.

The injection method overcomes any flaccid consistency or wet appearance, and the enzyme soln.can be uniformly injected and distributed in the meat without clogging of the needles and other injection equipment. 21.12.72 as 128760 (clg.21.12.71-US-210553) A231-1/31 (25.10.80) BAXTER LAB.INC. (5pp) (J48072358)

TENS- D12 13306 Y/08 =SU-727-109
Protein extract prepn. from whole untreated fish - by treating aq. suspension with two proteinases at a different pH (NO221176)
TENSEI SUISAN KK 25.04.75-JA-049597
*(10.04.80) *FR2308-320 +A23j-01/04*

Freshly caught fish or crustaneans are charged in bulk to a reactor without any preliminary cutting-up to form an aq. suspension. The protein is then extd by treating the suspension at 50-60°C with two types of proteinase enzymes at pH 9-10 and 5-6 respectively for each type.

A furtherprocess comprises heating the aq suspension to over 60°C to deactivate and autolysing enzymes present, then adjusting to pH 9-10 and adding a proteinase at 50-60°C. After reaction the pH is adjusted to 5-6 and an acid resistant protease in added. The aq. layer is sepd., filtered to remove bones etc and then the filtrate is conc. under reduced pressure to give a conc extract contg. $<$ 50% water.

The protein extract contg. proteoses, polypeptides and peptides has a high nutritive value and is suitable for food use as it is free from smell or bitterness and has a good taste. The fish oil is recovered and also the bones etc for fish meal.
Ikeda, I., Takasaki, T., Bul.13/5.4.80.2.4.76.as342354(3pp)

EAGR= ★ D12 83872 C/47 ★SU-727-189
Growth suppressant for undesired microflora in raw-smoked sausage - contg. sodium chloride and nitrite, sugar, streptococcus diacetilactis, lactobacterium plantarum, lactic acid and sorbic acid
EST AGRIC ACAD 13.07.78-SU-644765
(D16) (15.04.80) A22c-11

The anti-microbial compsn used as additive for smoked sausages contains(in wt. %) NaCl 79.0-90.99, $NaNO_2$ 0.12-0.37, sugar 3.6-6.1, culture of Streptococcus diacetilactis 1.8-3.65, culture of Lactobacterium plantarum 1.8-3.65, lactic acid 1.21-2.43 and sorbic acid 0.48-4.8.

The addn of Lactobacterium plantarum, lactic acid and sorbic acid accelerates the suppression of undesired microflora and thus improves hygenic conditions of the process. The prodn cycle is reduced to 5 days. The quality of the prod is improved.
Rei, M.K., Kirikall, V.V., Klaar, Ya.I., et al Bul.14/15.4.80.13.7.78.as644765(2pp).

TEXR= ★ D12 83873 C/47 ★SU-727-190
Cascade fish-separator for removal of water - has gratings made from wire rods with interacting bent ends and centre humps to reduce speed
TEXRYBPROM 05.09.78-SU-661638
(15.04.80) A22c-25/02

Cascade fish-separator for removing water from fish and other sea-products which can also be used in machines for washing and hydraulic transportation of fish, comprises gratings made from rods. Sepn effectiveness is increased and damage to the fish is reduced, by positioning the gratings in sequence. The ends of the rods are bent downwards to form hooks and these are placed together and linked to produce the cascadings sections. The middles of the rods are bent upwards at an obtuse angle.
Agarkov, V.M., Zibnitskii, V.S., Svoyanovskii, V.I., Bul.14/15.4.80.5.9.78.as661638(2pp29).

See Also

D13 BE 884264 D13 BR 7904296 D13 SU 727110

D13: OTHER FOODSTUFFS

RALS ★ D13 82658 C/47 ★BE-884-264
Prodn. of dried granulated protein gel, pref. soya - by hydrating protein isolate, heating to gel, granulating and drying
RALSTON PURINA CO 10.07.80-BE-884264
(D12) (03.11.80) A23j A23l

Process comprises first hydrating with water of a vegetable protein isolate showing gelification properties to form a mixt. having a 60-75% added water content. The hydrated isolate is heated to 75-125°C to form a protein gel. Finally the granulate is granulated and dried.

Pref. isolate contains $\geqslant$ 90% protein, esp. soya, and/or has gelification properties such that by heating at $\sim$100°C for $\sim$30 mins. the gel formed has a mechanical resistance such that $\geqslant$50g force is required to pierce the surface.

Textured vegetable protein is used as a meat substitute in meat prods. It rehydrates rapidly with water and mixes well with minced meat foods to form a mixt. similar to meat. 10.7.80 as 884264 (25pp597).

OLVE- ★ D13 C/47 ★BR 7901-541
Prodn. of soya extract
OLVEBRA IND COM SA 09.03.79-BR-001541
(07.10.80) A23l-01/20

OLVE- ★ D13 C/47 ★BR 7901-542
Prodn. of soya cpd.
OLVEBRA IND COM SA 09.03.79-BR-001542
(07.10.80) A23j-01/14 A23l-01/20

OLVE- ★ D13 C/47 ★BR 7901-543
Prodn. of soya extract in powder form
OLVEBRA IND COM SA 09.03.79-BR-001543
(07.10.80) A23l-01/20

OLVE- ★ D13 C/47 ★BR 7901-544
Prodn. of protein cpd. from soya in powder form
OLVEBRA IND COM SA 09.03.79-BR-001544
(07.10.80) A23j-01/14 A23l-01/20

BARI/ ★ D13 C/47 ★BR 7904-296
Vegetable and/or animal extracts prodn. equipment
BARIONI J R L 06.07.79-BR-004296
(D12) (07.10.80) A22c-07 A23n-01

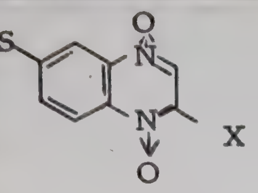
STAU ★ D13 82673 C/47 ★CA 1088-364
Milk solids substitute replacer for caramel mfr. - contg. whey protein concentrate, dried whey solids and caseinate salt
STAUFFER CHEMICAL CO 28.06.76-US-700285
(28.10.80) A23g-03/32 A23j-01/20

A milk solids replacer for caramels consists of (a) whey protein concentrate providing 13.75-17.25 wt. % whey protein based on total wt. of the compsn., (b) 35 to 45 wt. % dry whey solids, and (c) 8-12 wt. % Na or Ca caseinate.

The compsn. can be used in the prepn. of high quality (starch-free) caramels. It avoids the problems connected with the storage and handling of whole milk or liquid milk prods. 27.5.77 as 279356 (27pp955).

CIBA ★ D13 82682 C/47 ★CH-619-698
6-Phenylthio-quinoxaline di-N-oxide derivs. - useful as animal growth promoters
CIBA GEIGY AG 14.01.76-CH-000395
B02 C02 (15.10.80) A23k-01/16 C07d-241/52

Prepn. of new quinoxaline di-N-oxides of formula (I) where X is -CH=NNHCOOR is carried out by reacting 6-phenylthio-2-dimethoxymethyl-quinoxaline di-N-oxide (II) of



(I)

formula (I) where X is $CH(OMe)_2$ with a hydrazinoformate ester of $H_2NNHCOOR$ (III) in the presence of a strong aq. acid in MeOH at 30-65°C. where R is 1-3C alkyl.

II) can be prepd. by reacting 5-phenylthio-benzofur- n (IV) with methylglyoxal dimethyl acetal in the pres- e of NH_3, and (IV) can be prepd. by reacting 2-nitro- henylthio-aniline with KOH. 14. 1. 76 as 000395 (4pp367)

I/ ★ D13 C/47 ★CS 7904-073
sage-type, steamed cheese prodn.
HERIAN K 13.06.79-CS-004073
(31.07.80) A23c-19/06

ES/ ★ D13 C/47 ★CS 7904-991
pn. of collagen for gelatin or glue prodn.
GRESER E 17.07.79-CS-004991
G03 (31.07.80) A22c-21 A23l-01/04

L/ ★ D13 C/47 ★CS 7905-229
ey discharge from cheese prodn. equipment
CELLER R 27.07.79-CS-005229
(31.07.80) A23c-19/05

CO/ ★ D13 C/47 ★CS 7905-642
lk fat emulsification
VACOVA T 26.11.79-CS-005642
(31.07.80) A23c-23

SE/ ★ D13 C/47 ★CS 7906-456
dour elimination from heat treated materials
VESELY J 24.09.79-CS-006456
(31.07.80) A23n-17

RO/ ★ D13 C/47 ★CS 7907-041
odstuffs extrusion and texturisation appts.
CEROVSKY J 17.10.79-CS-007041
*(31.07.80) A23l-01/**

EIS- ★ D13 82720 C/47 ★DT 2917-555
roduction of filled chewing gum - having extruder with central ozzle and provision for heating and cooling at different stages of roduction
WEISERT LOSER & SOH (BOSC) 30.04.79-DT-917555
(13.11.80) A23g-03/30

illed chewing gum is produced by extrusion with a central ozzle to provide the stream of filling. This central noz- le can have its precise location adjusted. The extruder is urrounded by a jacket and heater which can be used for eating or cooling.

To start the unit up, the extrusion head is first heated reduce the friction. Once the unit is operating the fric- ional energy generated is removed by passing cold water rough the jacket.

For producing filled chewing gum. Allows the gum con- istency to be accurately maintained and the posn. of the illing-injection nozzle to be maintained steady. 30.4.79 s 917555 (14pp1053).

YBE- ★ D13 82813 C/47 ★DT 2918-899
owder compsns. for prodn. of acidulated milk prods. - contg. acid recursor, buffer and opt. dried milk
BEN-GURION UNIV NEG 10.05.79-DT-918899
(13.11.80) A23c-09/12

owder compsns. for mixing with milk to produce an acid- lated milk prod. contain (per litre of liq.) 10-50 g of an cid precursor (I) and 2.5-20 g of a weakly acidic buffer II). Powder compsns. for mixing with water to produce n acidulated milk prod. contain (per litre of liq.) 10-50 g f (I), 2.5-20 g of (II) and 90-240 g of dried milk.

Compsns. have a long shelf-life and are easily made up with milk or water to produce a yogurt-like dessert with ood organoleptic and nutritional properties and good reeze-thaw stability. 10.5.79 as 918899 (20pp367).

HENR/ ★ D13 82819 C/47 ★DT 2919-199
Appts. for removal for vapour skin on steam peeled potatoes - having cylindrical vessel with rotating vertical brushes around wall and rotating table to throw potatoes onto brushes
HENRICHS H W 12.05.79-DT-919199
(13.11.80) A23n-07/02

The steam skin on steam peeled potatoes is removed by putting the potatoes into a cylindrical vessel. The vessel has a set of vertically mounted brushes driven by electrical or hydraulic motors arranged around the wall.

There is a rotating table with arms above it mounted at the base of the vessel. This serves to throw the potatoes against the brushes which then removes the skin in question.

For removing the residual rubbery coating of partially cooked flesh when potatoes are peeled by a high pressure steam process. Allows this to be done directly after peeling in a way which does not cause environmental pollution and is economical. 12.5.79 as 919199 (10pp1053).

GREC ★ D13 82833 C/47 ★DT 2938-807
Parenteral nutrition fatty emulsion - contg. soybean oil, egg yolk phospholipid, 12-20c fatty acid, cholesterol, and water
GREEN CROSS CORP 07.05.79-JA-055476
B05 (13.11.80) A61k-37/22

New fatty emulsions contain (a) 5-50% (w/v) soya bean oil; (b) egg-yolk phospholipid in an amount of 1/4 to 1/25 of the weight of soya bean oil; (c) 0.01-0.30% (w/v) of a 12-20C fatty acid or salt thereof; (d) 0.005-0.50% (w/v) cholesterol or cholesterol derivative; and (e) the remainder water.

The diameter of the emulsified particles pref. does not exceed 1 μ, and the mean particle diameter is pref. $\not>$ 0.1 μ. The concentration of the fatty acid or salt thereof is pref. 0.04-0.07% w/v. Pref. fatty acids are stearic, oleic, linoleic, palmitic and lindenic acids. The fatty emulsion is pref. made isotonic by addition of glycerol or glucose.

The emulsions contain far finer fat particles than known fatty emulsions, and are thus less susceptible to accumulation in tissues or in organs such as liver or spleen. Furthermore, the emulsions are more stable than known formulations, and in vivo act more quickly as an energy source. 25.9.79 as 938807 (13pp280).

TEHE ★ D13 82936 C/47 ★EP --18-433
High yield aromatic carboxylic acid prodn. - by oxidation of methyl or formyl substituents using heavy metal and lithium cpds.
TEIJIN HERCULES CHE KK 02.05.79-JA-053348
A41 E14 (12.11.80) B01j-23/78 C07c-51/25 C07c-63/04 C07c-67/39 C07c-69/82
D/S: E(DT,FR,IT).

An aromatic carboxylic acid or its Me ester is prepd. by oxidising an aromatic cpd. having a Me or formyl gp. directly bonded to a nuclear C atom of the aromatic ring in the liq. phase with O_2 or a gas contg. it, in the presence of a heavy metal cpd. catalyst (1 mole) and a Li cpd. (0.1-10 moles) and in the absence of an aliphatic carboxylic acid as solvent; and opt. esterifying the prod. with MeOH.

Higher conversions, selectivities and yields can be obtd. than in conventional processes, where no Li cpd. is used. The Li cpd. can prevent clogging of the apparatus used by deposition of the catalyst. The prods. can be food additives or intermediates, e.g., in polyester synthesis.
24.8.79 as 103124 (24pp558).
(E) ISR: US3790624; US1900648; CH-400099; FR2365550.

FARH D13 80976 C/46 =EP --18-534
Alkaloid and lipoid cpd. extn. from ground lupin - with mixt. contg. alcohol or glycol and ammonia and then washing with water
HOECHST AG 19.04.79-DT-915762
*C03 (12.11.80) *DT2915-762 A23l-01/20 +A23j-01/14*
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

Crushed or ground oil seeds, esp. lupin seeds, are treated with an extn. mixt. contg. NH_3 or NH_4OH and an organic solvent of formula (I)

$$R^1-(C_nH_{2n})-OR^2 \qquad (I)$$

(where either R^1 and R^2 are H and n is 1, 2 or 3, or R^1 is OH and R^2 is H, Me or Et and n is 2 or 3). After separating the extn. mixt., the seed residue is washed with water.

The products are used as foodstuffs and feedstuffs. Lipoid content can be reduced to 0.1-0.6 wt. % and bitter alkaloid content to 2-5% of the original amt. Protein proportion and nutritional value are increased. White, odourless lupin seeds are obtd., almost free from bitterness. NH_3 acts as solvent and also changes the flour structure, so that the extn. time is lowered.

15.4.80 as 102006 (12pp200).

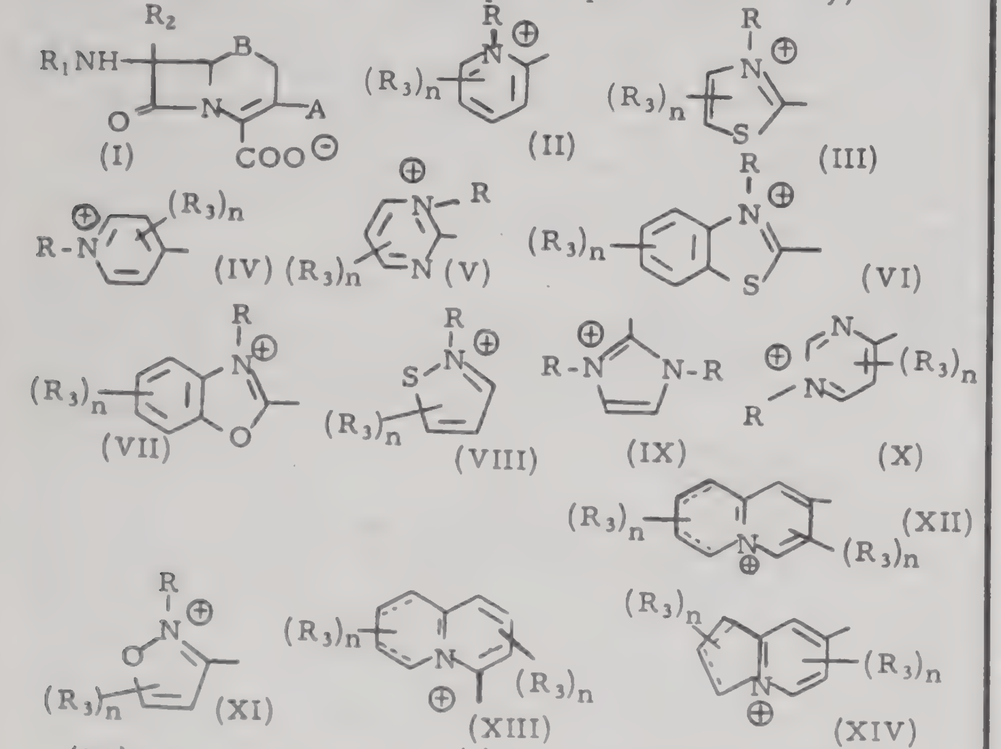
(G) ISR: DT2405593; DT2748885; US3790553; GB1318596; DT2639532.

MERI ★ D13 82981 C/47 ★EP --18-595

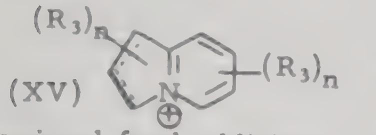
7-Heterocyclyl:amino-cephalosporin derivs. - and 5-de:thia, 5-oxa and 5-aza analogues are general antibacterial

MERCK & CO INC 27.04.79-US-034051 (27.04.79-US-034035)
B02 C02 E13 (D22) (12.11.80) A61k-31/54 C07d-213/61 C07d-471/04 C07d-487/04 C07d-493/04 C07d-501/18
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU,NL, OE, SW).

Cephalosporins and their analogues of formula (I) and their salts and esters are new (where B is S, O, CH_2 or NR_7, R_2 is H or CH_3O-, R_1 is a gp. of formula (II)-(XV), R is H, (1-6C) alkyl, (opt. substd. by Cl, F, OH, (1-6C) alkoxy COOH, amino, sulpho or di(1-6C)alkylamino), or phenyl (1-6C)alkyl or phenyl(2-6C)alkenyl (both opt. substd. by Cl, F, COOH, NH_2, CN, OH or sulpho). R_3 is Cl, F, OH, COOH, sulpho, CN amino opt. mono- or di-alkylated, alkoxy or opt. substd. (1-6C)alkyl where the substituent is COOH, CN (1-6C) alkoxy, phenyl or phenoxy, n is 0 to 3, R_7 is H, (1-6C)alkyl, (7-10C)phenylalkyl or CHO, A is a group commonly encountered in cephalosporin chemistry).



(I) (II) (III) (IV) (V) (VI) (VII) (VIII) (IX) (X) (XII) (XI) (XIII) (XIV)



(XV)

(I) are antibacterial agents active against Gram-positive and Gram-negative organisms. They may be used as medicaments, animal feed additives, food preservatives, disinfectants and in industrial systems (e.g. aq. paints and paper mill white water).

24.4.80 as 102203 (129pp916)

(E) ISR:

BENC D13 81052 C/46 =EP --18-604

Skimmed milk powder and butter fat-contg. food - stabilised with mixt. of mono:sodium phosphate, sodium poly:phosphate and crosslinked poly:phosphate

BENCKISER-KNAPSACK 27.04.79-DT-917086
*(12.11.80) *DT2917-086 + A23c-09/15 A23c-20*
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

Stable food prod. is prepd. by heating (A) 20-40 (pref. 25-30) wt. % skimmed milk powder, 0-45 (pref. 20-30) wt. % butter fat and 30-80 wt. % water, with, w.r.t. dry solids, (B) 2-6% salt mixt. of NaH_2PO_4, Na polyphosphate contg. 70% P_2O_5 and a crosslinked polyphosphate having pH 2.9, in ratio 3 : 4 : 2, to 80-120 (pref. 90-110 °C, for 2-20 min., in a standard processed cheese-prod apparatus.

Prod. consistency can vary, by adjusting dry solids c fat content, so that the prod. can be cut or eaten with a spoon. A stable emulsion is prepd. without further additives. The prod. can be stored 3 months at 37° C or 6 months at room temp., without changes in quality. Use of specific phosphate mixt. imparts a mild, clean, fresh slightly sweet taste.

25.4.80 as 102227 (13pp200).

(G) ISR: AU-459972; FR2381474; FR2068674; US3310406 FR1107958; DT2432148; US2224720; FR-859518.

BUHL ★ D13 82985 C/47 ★EP --18-6

Cocoa bean kernel pre-grinding mill - with seal at feed end a vacuum pump at discharge end removing vapours and volat contaminants

BUHLER GEBR AG 26.04.79-CH-003961
P41 (12.11.80) A23g-01/04 B02c-19/12
D/S: E(CH, DT, FL, GB, IT, NL).

During the pregrinding of cocoa bean kernels in a narrov gap mill, the feeder is sealed and a vacuum system is connected to the discharge end of the last mill, if multi-stage grinding is applied. The vacuum is kept at an abso lute pressure of ⩽ 0.8 bar (pref. ⩽ 0.2 bar) and the vapours are continuously extracted from the grinding spaces.

This system removes gas or moisture from the bean kernels even with higher moisture contents without detriment to the aroma by overheating or any additional heat input. The later conching operations can be shortened substantially.

25.4.80 as 102250 (19pp39).

(G)ISR: FR1567475; DT1482515; DS1007608; DT1507473; DS1226406.

AQUA/ D13 68166 B/38 =EP --18-70

Packaging process for lollipop on stick - uses part of wrapper to forn stick and incorporates pull wire to facilitate unwrapping

AQUARIUS C H 07.05.79-BE-876080 (07.05.79-BE-195024)
*Q31 (12.11.80) *BE-876-080 + A23g-03 A23g-07 B65b-51*
D/S: E(CH, DT, FL, FR, GB, IT, LU, NL, OE, SW)

A lollipop on a stick is produced by forming the lollipop head in the conventional manner, wrapping the head and then twisting the protruding ends of the wrapper together to form the stick. The stick is formed at a place on the lollipop head where sugar glue has been applied so that, when the head is unwrapped, the stick remains attached to the head.

The stick is pref. rendered stable by applying a glue to that part of the wrapping paper which is to be twisted together or by using a paper which is self-adhesive on the application of heat. The packing material is pref. based o cellulose and is cut from a rolled strip comprising a trans parent central portion in which a coloured thread is embec ded, the latter facilitating the unwrapping of the lollipop for consumption.

The use of the wrapping material to form the stick eliminates the need for a separate stick inserting device on the lollipop forming machine and also saves the cost of the wood or plastic for the stick itself.

6.5.80 as 200428 (14pp1370)

(F) ISR:- US2243375; US2096611; US2830417; LU--49800; US1382383; GB-367976; US1545463; US2872768; GB-779748; FR1160942; US3112604;US2488272.

LUND/ ★ D13 83042 C/47 ★EP --18-761

Long shelf life food prod. - comprising lower viscous cooked fruit and upper cottage cheese layers

LUNDSTEDT E 23.04.79-US-032562
(12.11.80) A23c-19/07 A23l-01/04
D/S: E(BE, CH, DT, FL, FR, GB, NL, SW).

A cottage cheese prod. comprises (a) a closed, sealed, container; (b) a viscous, cooked layer of 35-40 pts. fruit,

-48 pts. cane sugar, 0-5 pts. condensed fruit flavour, -1 pt. pectin stabilizer and sufficient water to provide otal soluble solids content of 40-52% as determined by refractometer, in the lower part of (a); and (c) a layer ntg. cottage cheese above (b).

Graininess and fruit colour change, which would be ex- cted to develop after a time with a mixt. of fruit and ttage cheese, are avoided.

.4.80 as 301279 (14pp558).

) ISR: FR2180014; GB1032075; DT1492799; FR2091444; R2197528.

ONG- ★ D13 83126 C/47 ★FR 2447-682

heese mfr. by seeding milk or by spraying cheese - with enicillium moulds previously cultured until germinative tube rmation, reduces storage time of cheese before packing

GRP BONGRAIN 30.01.79-FR-002315

(03.10.80) A23c-19/02 C12b-01

he seeding of the milk or the cheese itself by spraying he surface with moulds, partic. impregnation with conidum of the moulds which have previously been cultivated n an immersed aerated culture, in a nutrient medium up ntil emission by the conidium of $\geqslant$ 1 germinative tube.

Pref. penicillium are candidium or caseicalum, cammbert or album or glaucum or roqueforti. The pref. utrient medium is pref. milk opt. supplemented in sugar, itrogen and/or growth elements in a synthetic nitrogen ontg. sugar medium opt. contg. surfactants. The medum is pref. seeded with 2 x 10^8 to 2 x 10^{12} of conidium/l nd culture is pref. at 10-35°C with aeration of 0.1-5 vols. ir/vo. culture. The milk or the cheese is pref. seeded ith 1 x 10^8 to 2 x 10^{10} of conidium for the equivalent of 000 1 milk.

The process enables less conidium to be used for the eeding, and makes it easier to avoid fungal contamination. 0.1.79 as 002315 (9pp597).

AIT- D13 30555 A/17 =GB 1572-203

heese raw material prepn. from milk - acidified and ultrafiltered ith at least one lowering of circulating milk temp.

CENT LAITIERE NORMA 18.10.76-FR-031257

*(23.07.80) *DT2746-536 A23c-19/02*

airy raw material is produced by acidifying $\geqslant$ a fraction f the milk required for the mfr. of cheese to pH $\leqslant$ 4.4 i.e. < isoelectric pt. of casein), then subjecting it to ltrafiltration. Process also comprises the step of owering the temp. of the acidified milk or ultrafiltration etentate to 0-4°C, to obtain a retentate capable of being onverted into cheese by rennet treatment or other equiv. asein-coagulating enzymes. Pref. the milk used is derved from a cow, ewe, goat, ass, buffalo or other dairy emale, and is raw, pasteurised, whole, or, wholly or artly skimmed milk which is a previously conc. or unconcentrated milk.

Fresh cheeses, soft cheeses or pressed cheeses of the aint Paulin type are esp. prepd. in the process, and conain a reduced amt. of calcium and lactate. 18.10.77 as 043287 (8pp931).

ROC D13 10827 Y/06 =GB 1579-241

ompsn. for treating hypercholesteroemia or hyperlipidemia - omprises fatty acid polyester, fat soluble vitamin and ydrogenated palm oil

PROCTER & GAMBLE CO 12.02.76-US-657529 (12.02.76-US-657528)

*B05 (19.11.80) *US4005-196 A61k-31/23*

nti-hypercholesterolaemia and/or anti-hyperlipidaemia ompsn. comprises (a) edible, non-absorbable, nonigestible liq. polyol fatty acid polyester having $\geqslant$ 4 -22C fatty acid ester gps. where the polyol is chosen rom sugars and sugar alcohols contg. 4-8 OH gps. and b) sufficient anti-anal leakage agent to prevent leakage f liq. polyester through the anal splinter.

The agent is chosen from edible digestible sources of $\geqslant$ 12C satd. fatty acids (other than acids per se), edible on-absorbable non-digestible solid polyol fatty acid olyesters having $\geqslant$ 4 8-22C fatty acid ester gps. where he polyol is selected from sugars and sugar alcohols ontg. 4-8 OH gps., and edible non-digestible esters of β-branched 10-18C fatty acids.

Absorption of cholesterol is inhibited without decreasing the tissue's supply of fat-soluble vitamins. 11.2.77 as 005716 (12pp977).

PROC D13 84686 Y/48 =GB 1579-266

Potato chips or crisps from rapidly dehydrated potato - by mixing with water, forming paste into sheet and frying

PROCTER & GAMBLE CO 24.05.76-US-689307

*(19.11.80) *BE-854-955 A23l-01/21*

Snack food chips with a strong raw earthy flavour are made by making a dough of water and dehydrated comminuted raw potatoes, forming into a sheet and deep-fat frying. The potatoes are dehydrated to 5-12% moisture in 10s-4 min., pref. 6-10% in 10-30 s.

Potatoes are pref. comminuted then dried in a drum dryer at 260-370°F rotating at 1-20 rev/min. The dough pref. has a moisture content of 30-50%, is formed into a sheet by a roll mill and is cut into individual chips. The product has a uniform texture and long shelf life. 23.5.77 as 021616 (5pp1358).

FIRM ★ D13 83178 C/47 ★GB 1579-297

Prevention of flavour binding in textured protein - by addn. of oil or fat and opt. emulsifier

FIRMENICH SA 08.06.76-US-693949

(19.11.80) C07g-07

Absorption of a flavouring agent onto plant or single-cell protein is reduced by treatment either before or during addn. of flavouring, with $\geqslant$1 oil or fat or a mixt. of oils or fats with $\geqslant$1 emulsifier.

Method reduces flavour binding and consequent suppression or alteration of flavour, esp. in textured protein e.g. meat substitutes. 4.3.77 as 009301 (23pp955).

QUAK ★ D13 83182 C/47 ★GB 1579-324

Gelled pet food of intermediate moisture content - contg. sodium alginate gelled with divalent or multivalent cations

QUAKER OATS CO 23.02.76-GB-007084

C03 (19.11.80) A23k-01 A23l-01/04

Food prod. comprises meat, meat prods. and/or other protein sources, has moisture content 25-45 wt.% and pH 4-7, contains enough water-soluble preservative to reduce the water activity to a level at which the prod. is bacteriologically stable, and also contains Na alginate (or other alginic acid deriv.) (A) crosslinked to a gel by di- or multivalent cations.

Pref. (A) is 0.3-3 wt.% and is gelled by Ca^{2+}, esp. slowly released from an insoluble Ca source by addn. of acid. Pref. prods. have water activity 0.75-0.91; moisture content 30-40% and pH 4.5-5.5.

The gel structure ensures attractive, meat-like appearance and a prod. with high animal acceptance. 23.5.77 (3pp1251).

MCCA- D13 75404 Y/42 =GB 1579-392

Frozen chips with a layer of fat on the surface - to be heated in shallow trays in an oven

MCCAIN FOODS LTD 30.03.76-CA-249232

*(19.11.80) *NL7703-461 A23l-01/21*

Frozen fried potato chips which when reconstituted in an oven have colour, texture and taste similar to fresh chips are made by blanching raw potato segments in water, first at 150-160°F for 12-25 min., then after cooling at 175-195°F for 2-6 min., drying in hot air to reduce the wt. gradually by 10-15%, then allowing to equilibrate at room temperature for up to 10 min..

The segments are then immersed in a deep fat bath at 325-375°F for 60-120 s to fry and further reduce the wt. by an additional 20-35%. The fried segments are frozen and uniformly sprayed with minute globules of liquid oil or fat to add less than 1% by wt. as a uniform discontinuous unobtrusive coating. The segments are pref. coated with palm oil from spray nozzles while on a wire mesh carrier. 30.3.77 as 013374 (5pp1358).

ALKE/ D13 60962 B/33 =GB 1579-409

Brussels sprout rotary stripper with blade retraction - enabling sprouts with stems of irregular thickness to be stripped without loss of speed

ALKEMADE A J C 26.01.78-GB-003179

_(19.11.80) *NL7900-561 A23n-15/*_

A cutter head for a machine removing Brussels sprouts from a stalk includes a disc rotating about an axis perpendicular to its plane and with a central opening into which a stalk can be inserted, and knives each connected to a respective arm movably secured to the disc, with the knives biased towards the axis.

The arms are connected so that all move simultaneously and a second rotatable disc is mounted coaxially with the first and capable of limited angular displacement. A brake acts on the second disc so that an abutment on it moves the knives away from the axis, while further biasing places the second disc in a set position relative to the first when the brake is inoperative. 26.1.78 as 003179 (4pp1358).

MITN D13 44357 A/25 =GB 1579-460

Oxygen absorbent used as food preservative - contains iron, small sulphur quantity to suppress hydrogen evolution and metal halide

MITSUBISHI GAS CHEM IND 08.12.76-JA-147452

_A81 E36 (19.11.80) *DT2754-708 B01d-53/02 +A21d-15_

Oxygen absorbent comprises Fe and $\geqslant 1$ metal halide. The Fe contains S in an amt. of 0.05-5 (pref. 0.1-1)% on the basis of wt. of Fe. Pref. the Fe is in the form of powder, foil, fibre or chips. The absorbent is prepd. by mixing the Fe with solid metal halide. Pref. amt. of solid metal halide is 0.1-300 wt.pts. per 100 wt.pts. Fe.

Pref. the absorbent further contains a binder esp. Na alginate, CMC, (hydroxy)methylcellulose, ethylcellulose, Na CMC, PVA, tragacanth gum etc.. The absorbent is useful for preventing putrefaction of foodstuffs. Risk of hydrogen-evolution is avoided. 6.12.77 as 050748 (13pp).

TENU/ D13 88294 Y/50 #GB 1579-536

Deep freezing tomatoes - involves splitting skins by cooling then heating to about 30 degrees C to facilitate skin removal

TENUTA A 10.08.77-BE-857677 (20.05.77-GB-021398)

_A92 +Q34 (19.11.80) *BE-857-677 A23n-07_

Fully ripened tomatoes are peeled by subjecting the tomato to an increase in temp. from a first temp. pref. a reduced temp. of -30°C to a second temp. 60-65°C greater than the first (pref. 30-35°C) and < 95°C.

Pref. the increase in temp. is effected by the use of warmed water from the outlet of the heat exchanger of a refrigeration plant. The skin of the tomato is split and the split skin removed from the tomato.

Industrial process produces peeled tomatoes with good vitamin characteristics without the use of preserving additives. The tomatoes can be frozen whole or minced. 20.5.77 as 021398 (3pp918).

SCHR- ★ D13 83190 C/47 ★GB 2046-571

Appts. for producing large cheese blocks - comprising container with central drainage screen removable prior to final pressing

SCHREIBER CHEESE L 16.04.79-US-030119

_P13 (19.11.80) A01j-25_

Cheese blocks are produced from curds and whey using a container for holding the curd particles. In its initial position the container is open at the top and bottom. Perforated receiver encloses the bottom open-end. Drain screen within the container consists of two parallel foraminous sidewalls and extends from the receiver to the top end of the container. When pressure is applied to the curds, whey passes through the foraminous sidewalls into the space between them and hence through the perforations in the receiver.

Large block of cheese e.g. 700 lbs, can be formed which does not contain soft, incompletely drained areas. 15.4.80 as 012412 (10pp295).

ELEA/ ★ D13 C/47 ★IL --52-788

Potato chips mfr. - includes drying the wet slices of potato in a centrifuge and heating in oven with circulating hot air

ELEAZAR Y 22.08.77-IL-052788

_(26.10.80) A23l-01/21_

MEIR/ ★ D13 C/47 ★IL --53-360

Date confiture prepn. - by removing seed from date and replacing with almond nut and cooking in sugar syrup

MEIRI S 11.11.77-IL-053360

_(26.10.80) A23l-01/21_

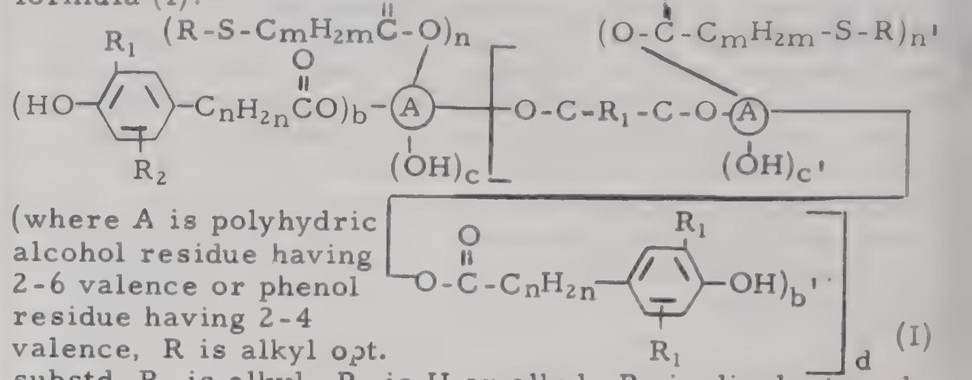
ADEK D13 58759 X/31 =J8 0041-639

Antioxidant for org matls - is carboxylate substd (polynuclear polyhydric) phenol residue

ADEKA ARGUS CH KK 17.12.74-JA-144815

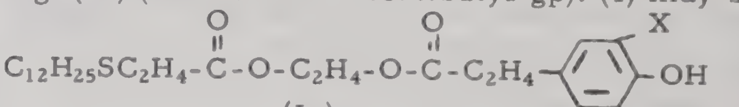
_A60 E19 (25.10.80) *J51070-192 C08k-05/37 C09k-15/14 C10m-01/38 +A23d-05/04 C07c-149/20_

The antioxidant used to protect organic materials is of formula (I):



(I)

(where A is polyhydric alcohol residue having 2-6 valence or phenol residue having 2-4 valence, R is alkyl opt. substd. R_1 is alkyl, R_2 is H or alkyl, R_1 is divalent carboxylic acid residue, m is 1-5, n is 0, 1 or 5, and d is 0 or 1 and when A is a polhydric alcohol residue, a and b are 1-5 if d=0, and a=0, 1-4, a'=0, 1-5, b=1-5, b' =0, 1-5, c, c' = 0 or 1, if d=1, when A is the polynuclear polyhydric phenol residue, a = 1-4, b and c=0, 1-3, if d=0, a =1-3, b and c = 1-2, a' and b' =1-3, resp. c=0, 1-2, c=0, 1-3, if d=1). (I) is e.g. (Ia):(where X is a tert.butyl gp). (I) may be used as the antioxidant for rubber articles, oils plastics, organometallic products, foods, etc. 17.12.74 as 144815, C09k-15/14, A23d-5/04, C07c-149/20, C08k-5/37, C10m-1/38 (25.10.80) ADEKA ARGUS CH KK (16pp) (J51070192)



(Ia)

IDEK D13 52614 Y/30 =J8 0042-081

Gel-forming polysaccharide prepd. by Arthrobacter cultivation - contains glucose, mannose, dihydrostreptose and carboxyethyl rhamnose

IDEMITSU KOSAN KK 19.01.76-JA-004051

_A11 B07 C03 (A96 A97 D16) (28.10.80) *DT2701-312 C08b-37 C09k-03 +C12p-19/04 C12r-01/06_

New gel-forming polysaccharide (I) consists of (A) glucose (B) mannose, (C) dihydrostreptose and (D) 3-o-(1'-carboxyethyl)-L-rhamnose, Mol.ratio of these components is (A):(B):(C):(D) 10:10:1-3:3-8. (I) contains 8-14 wt % O-acetyl gps. calculated as AcOH, and has av.mol.wt. 8000000.

(I) can be used in food industry, as thickener, tackifier gelling agent, tissue restorer, coagulant for suspended particles, e.g.protein as gelling and anti-syneresis reagent emulsion stabiliser, meat binder and perfume retainer, In medicinal field, (I) is used as carrier or auxiliary, anti-tumour reagent, for artificial internal organs, as emulsions stabiliser, In agriculture, (I) is used as soil-reformer, fertiliser granulator, domestic animal feed component in sericulture, for fertiliser paste prodn. (I) can be used as adhesive, flocculant, gelling agent, for explosives, as a fire-fighting component in water-soluble paints and as abrasive.

In an example, polysaccharide was prepd.by inoculating an aq. medium contg. 1.56% EtOH, 1% carbazole, 0.2% K_2HPO_4, 0.025% $MgSO_4.7H_2O$ and 0.001% $FeSO_4.7H_2O$ at pH 8. with Arthrobacter carbazolum Ferm-2575 ATCC 31258. Cultivation took 4 days at 30°C. 19.1.76 as 037224, C08b-37/00, C09k-3/00, C12p-19/04, C12r-1/06 (28.10.80) IDEMITSU KOSAN KK (20pp200) (J52089188)

C- ★ D13 83797 C/47 ★NL 7903-506

age installation for fresh milk at prodn. point - incorporates
er extracting system and storage for conc. milk

MELCON BV 04.05.79-NL-003506
P13 (06.11.80) A01j-09 A01j-11 A23c-09

ter is extracted from milk which is to be stored,
fore it is cooled, and is put into tanks, in a milk prod-
ng unit such as a farm. For pref. the milk is first of
heated and the water is then extracted with the help of
acuum vaporiser. At least 50% of the water present in
e milk is extracted. Milk in a collecting tank is put
rough a preheating unit, a vaporiser and a vapour sep-
ator. Condensate is then fed through the preheater,
ilst the conc. milk from the vapour separator is trans-
rred to a storage tank. Steam from the separator is
mpressed to its saturation point and is fed along a line,
rough the vaporiser so that the heat of condensn. is used
r vaporising the preheated milk.

Outlines a technique by which milk can be stored on the
rm until the collecting wagon calls, in a smaller install-
ion using less energy. Transport costs are reduced and
e water resulting can be used for flushing out the pipe-
ork. 4.5.79. as 003506 (8pp1014).

AD D13 16794 X/09 #SU -727-110

eat, poultry and fish analogues prodn. - which have meatlike
ewability and resist dispersion in water

STANDARD OIL CO (IND) 29.01.75-US-545031 (24.02.76-SU-326758)
*(D12) (10.04.80) *US3939-284 A23j-03*

eat anologue is produced from an aq. suspension of pro-
in-contg. single cell microorganisms and a protein-
ntg. vegetable prod. The moisture content is adjusted
10-50%. The suspension is extruded at an elevated
mp. to form strips having fibrous structure. The strips
ving fibrous structures. The strips are then mechanical-
worked and dried.

The quality of the prod is improved by cutting the strips
to pieces, before the mechanical working, washing these
eces with water at 5-250°C(under press.) at pH 4.5-9.5.
he subsequent mechanical working is effected by passing
e prod between rolls having different rotational speeds.

This prod has not a legume taste inherent to other
eat analogues based on soya proteins.

kin, K., Flannery, R. J., Darrington, F. D., Bul.13/5.4.80.
4.2.76.as326758(4pp70).

ENO D13 47023 Y/27 =SU -727-111

og or cat food resembling liver - prepd. by heating emulsified fat,
ood and a reducing sugar to cause solidification

GENERAL FOODS CORP 09.03.76-US-665207
*C03 (10.04.80) *BE-852-064 +A23l-01/23*

he food is made by preparing an aq mixture comprising
mulsified fat, blood and a reducing sugar, heating this
ixt. to solidify it to give a prod. having the appearance
nd taste resembling liver.

Good for dogs and cats having the taste and appearance
liver which is reasonably economic to produce and has
atisfactory nutritive value is prepd.

ugai, H. K., Bul.13/5.4.80. 5.3.77.as459355(2pp).

MCC ★ D13 84143 C/47 ★US 4231-802

repn. of powder compsn. of difficultly dispersible materials - by
ixing with matrix contg. disintegrated beta 1,4-glucan and
olymer, to give cold water dispersible prod.

FMC CORP 10.07.78-US-923501 (01.06.76-US-691267)
A97 (A11) (04.11.80) A21d-02/18 C08l-01/02

owders and granules which form a stabilized microdisper
sion of a normally difficult to disperse material (I) on
imple agitation in cold H_2O are prepd. as follows: (a) liq.
) is mixed with a matrix which consists of an intimate
nixt. of (by wt.) 70-99 pts. of disintegrated β-1,4-glucan
I), and 1-30 pts. of an H_2O-soluble polymer (III) so that
t. ratio (I): matrix is ≯ 1:4; (b) H_2O is added to swell the
natrix and form a paste (10-85% by wt. of paste); (c) the
aste is mixed with heating so that the added H_2O is evapd.

(III) is Na carboxymethylcellulose, xanthan gum, Na
lginate, carrageenin, tragacanth gum, karaya gum or pre-
elatinized waxy maize starch.

Method affords powders and granules of a variety of (I) (including oily materials, etc.) which form stable dispersions when mixed with cold H_2O. The method is suitable for treating vegetable oils for use in dry mix dressings, sauces, gravies, etc. 10.7.78 as 923501 (4pp478)

ABBO ★ D13 84201 C/47 ★US 4231-924

Tri-N-benzyloxy-carbonyl-fortimicin B prepn. - by reacting fortimicin A and benzyloxy carbonyloxy-succinimide then hydrolysing the prod.

ABBOTT LABORATORIES 10.01.79-US-002436 (20.03.78-US-888085)
B03 C02 E13 (04.11.80) C07c-103/52 C07h-15/22

Prepn. of 1,2',6'-tri-N-benzyloxycarbonyl fortimicin B (I) involves reacting fortimicin A (II) with N-(benzyloxycarbonyloxy)succinimide (III) to form tetra-N-benzyloxycarbonylfortimicin A (IV), and then hydrolysing (IV) to give (I).

(IV) is pref. hydrolysed by heating with weakly basic-alcohol mixt. to give a suspn., which is then extrd. with an organic solvent to give (I), e.g. $NaHCO_3$-MeOH is used.

(I) is an intermediate in the prepn. of 4-N-acylfortimicin B cpds. for possible conversion to 4-N-alkylfortimicin B cpds., which are broad-spectrum antibacterials, e.g. described in US 4155902. 10.1.79 C.i.p.4155902(18pp)

RETR/ ★ D13 84203 C/47 ★US 4231-926

Continuous hydrolysis of keratin-contg. material - by heating at atmospheric pressure, followed by high temp. hydrolysis under pressure

RETRUM R 11.12.78-US-968479
(04.11.80) A23j-01/10 C07g-07

Keratinaceous material (I) is continuously hydrolysed as follows: (a) (I) is continuously passed to a vessel and heated to ≯212°F; (b) (I) is violently agitated at 150-350 rpm and heated until it has wilted to a flowable and pumpable consistency; (c) the flowable material is passed to a 2nd, pressure vessel and stirred and heated to 265-365°F/25-150 psig until hydrolysis occurs; then (d) hydrolysed (I) is continuously pumped from the 2nd vessel and dried.

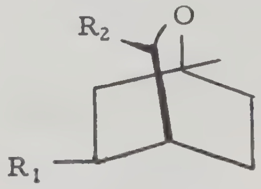
Efficient, controllable, fully continuous process affords prods. of substantially improved nutritional value from a variety of (I) (feathers, hair, nails, etc.). 11.12.78 as 968479 (10pp478)

INFL ★ D13 84209 C/47 ★US 4231-940

3-Hydrocarbyl-2-oxa-bi:cyclo-(2,2,2)-octane derivs. - useful for augmenting flavours and fragrances in foodstuffs etc.

INT FLAVORS & FRAGR INC 07.06.79-US-046936 (20.10.78-US-953128)
B02 E13 (D18 D21 D23) (04.11.80) C07d-309/04

Bicyclo octane derivs. of formula (I) are new.



(I)

In the formula (a) R_1 is H and R_2 is Me_2CH-CH_2, $CH_2=CHCH_2$ or Me_2CH; and (b) R_1 is Me and R_2 is Me_2CH, nPr, nBu or n-pentyl.

(I) augment or enhance the flavours and/or fragrances of foodstuffs, and also of perfumes, perfumed articles, colognes, chewing gums, toothpastes, medicinal prods. and smoking tobaccos. The use and prepn. of (I) are described in US 4195099. 7.6.79 as 046936 Div. ex 4195099 (44pp1248)

KYOW D13 30699 B/16 =US 4232-044

Deodorising proteins esp. soybeans - by treating with aldehyde oxidase and opt. alcohol dehydrogenase in presence of electron acceptor

KYOWA HAKKO KOGYO 19.08.77-JA-099143 (19.08.77-JA-099142)
*(D16) (04.11.80) *J54032-644 A23l-01/20 +A23j-03*

The flavour of protein contg. aldehydes is improved by reacting the protein with aldehyde dehydrogenase in the presence of a hydrogen acceptor or aldehyde oxidase in the presence of an electron acceptor until the free and bound aldehydes in the protein are converted to the corresp. acids.

Pref. the protein contains alcohols and the protein is also reacted with alcohol dehydrogenase in the presence of a hydrogen acceptor until the alcohols in the protein are converted to the corresp. aldehydes.

Process is esp. for treatment of soy bean protein. 21.8.78 as 935095 (6pp974)

UNIV D13 46876 C/27 =US 4232-046
Liq. starch and non-protein nitrogen contg. ruminant feed supplement - prepd. by gelatinising an aq. slurry of starch bearing source then adding NPN (SW 2.6.80)
KANSAS STATE UNIV R 16.10.78-US-951617
*C03 (04.11.80) *GB2036-530 A23k-01/22*

Liq. starch-non-protein nutrient NPN ruminent feed supplement is prepd. by (1) an NPN-free aq. slurry comprising water and a solids fraction including edible, substantially ungelatinised starch-bearing feed material is prepd. which comprises 30-90 (pref. 40-70) wt. % free water and 10-70 (pref. 30-60) wt. % solids; (2) directing the slurry to a reaction zone; (3) subjecting the slurry to pressures of 1-200 psig and a temp. of 215-388°F to gelatinise 50-100% of the starch bearing feed material, (4) adding NPN source to the slurry in a ratio of feed material to N from the NPN of 4-1:0.45-1.8, pref. 2-1:0.45-0.9.

NPN can come from a wide variety of sources and the starch sources include grains and industrial wastes. Feed supplement is prepd. by a low cost high capacity method. 16.10.78 as 951617 (7pp918)

GRFJ ★ D13 84253 C/47 ★US 4232-047
Encapsulated food additive or flavouring - in which active material is embedded in glassy extrudate of starch, cereal or protein
GRIFFITH LABS INC 30.05.78-US-910274 (02.09.76-US-719740)
(04.11.80) A23l-01/22

Compsn. contains $\frac{1}{2}$-40 wt. % of essential oils and/or oleoresins of spices or simulated spices, dispersed as particles up to 5 microns in size throughout and encapsulated by a dense fused glassy matrix of starch, cereal flour, modified starch, gum, protein or their mixts. It has a density of 55-90 lb/cu.ft. It is prepd. by mixing the flavouring agent, the encapsulating material and 10-40% water based on wt. of water and encapsulating material, heating under pressure and extruding the mass under conditions not conducive to puffing.

Compsn. has excellent long term storage stability. 30.5.78 as 910274 (+ 21.3.77-US-779476)(12pp955)

GENM ★ D13 84254 C/47 ★US 4232-049
Fat-free frosting compsns. - contg. comestible base prepd. from citrus juice vesicle solids
GENERAL MILLS INC 31.05.79-US-044799
(04.11.80) A23l-01/34

A frosting compsn. is prepd. from 90-98 wt. % comestible base (I), 0.4-3.0 wt. % acid stable whipping agent, and 0.1-0.5 wt. % locust bean gum, guar gum, xanthan gum or their mixts. (I) is prepd. by blending 25-65 wt. % citrus juice vesicles contg. 89-96 wt. % moisture, 7-45 wt. % nutritive carbohydrate sweetener, suff non-volatile edible acid or its Na salt to give a pH of 2.5-5.5, 1-5 wt. % ungelatinised starch, and 8-60 wt. % water to form a mixt. having Brookfield viscosity 3,000-6,000 c.p. at 190°F. This is cooked at 180-280°F.

In preparing (I), the juice vesicles are homogenised before use. Suitable sweeteners include sucrose, glucose, fructose, corn syrup solids or honey. The acid is e.g. citric, tartaric or malic acid. The whipping agent is e.g. a protein hydrolysate from casein, whey or vegetable protein. The compsn. opt. contains up to 25% of a fruit purée, and minor amts. of colouring, flavouring, vitamins etc.

The whipped prod. is light, and has the rich mouthfeel of creme icing but is free of fats. Citrus vesicle solids are an otherwise useless waste prod. 31.5.79 as 044799 (8pp955)

SCMZ ★ D13 84255 C/47 ★US 4232-050
Imitation acid-set mozzarella cheese - contg. specified high HLB emulsifier
SCM CORP 29.07.77-US-820302
A97 (04.11.80) A23c-19/02

Imitation high moisture acid-set mozzarella cheese is prepd. by combining 15-35% edible protein, of which ≥ 40 % is Na caseinate, 15-30% low m.pt. hydrogenated vegetable oil, 0.5-1.0% Ca source, 0.5-1.5 % emulsifying ag 0.2-3% edible acid and 45-53% water, mixing the compsn at 130-172°F, and cooling it. Emulsifier is a polyglycer oleate of hydroxyl value 400-600, saponification no. 60-1 and acid value <10, a polyoxyethylene (20) sorbitan fatt acid monoester, sucrose monooleate contg. 70 % monoester, or polyoxyethylene (20) mono- and diglycerides.

Emulsifier imparts improved workability and better mixing. Melt-down characteristics of the prod. are grea -ly improved. 29.6.77 as 820302 (8pp955)

STOE- ★ D13 84256 C/47 ★US 4232-05
Whey removal from cheese curds - by compression in variabl cross/sectional area between drum and belt
STOELTING INC 23.06.78-US-918244 (30.08.76-US-718744)
(04.11.80) A23c-19/02

Soft particulate cheese curd is dewatered by compression between a belt and a surface, one of them being foraminou Damage to the curd, caused by changes in the thickness of the curd bed, is minimised by providing a variable cross-sectional area between a curved surface and the belt. Belt is supported over rollers disposed ahead of and beyond the surface and spaced from the surface by a distance greater than the max. bed thickness. Belt runs between the rollers unsupported so that it can flex. Cross-sectional area can be regulated in response to changes in bed thickness by tensioning or slackening the belt.

Appts. is used for dewatering cottage cheese curd without damaging the curd particles. 23.6.78 as 918244 Div. ex 4156384 (9pp295)

NATT D13 67991 C/39 =US 4232-052
Pulverising fat-contg. foodstuff to free-flowing powder - by adding grinding agent contg. film-former spray dried with latent gas (NL 16.9.80)
NAT STARCH & CHEM CORP 12.03.79-US-019790
*P41 (04.11.80) *DT3003-983 A23l-01/34 + A23d-05*

A dry solid foodstuff of fat content >30% which normally forms a paste or grinding is powdered to produce a free-flowing compsn.

The process comprises adding 25-400 wt. % of a grinding agent to the fat content of the foodstuff. The grinding agent comprises a food-grade film-forming material of bulk density 3-25 lbs. per cub. ft. which has been spray-dried from soln. in the presence of a latent gas then grinding. Pref. the grinding agent is used in amt. 50-200 wt. %, and has a bulk density of 4-10 lb per cub. ft.

Nuts, seeds, chocolate, chocolate liquor and peanut butter are esp. used as the foodstuff in the process, with starches, dextrins or gums as the film-forming material. 12.3.79 as 019790 (4pp931)

GENM ★ D13 84257 C/47 ★US 4232-053
Cooked comestible base contg. citrus vesicle solids - with nutritive sweetener, acid and starch
GENERAL MILLS INC 31.05.79-US-043993
(04.11.80) A23l-01/21

A mixt. is formed having a viscosity of 3,000-6,000 c.p. at 190°F and contg. 25-65 wt. % citrus juice resicles of moisture content 89-96%, 7-45wt. % nutritive carbohydrate sweetener, suff non-volatile org acids or their Na salts to give the blend a pH of 2.5-5.5, 1-5 wt. % ungelatinised starch, 8-60 wt. % water. This is then cooked at 180-280 °F to form a base having a moisture of 30.60 wt. % and Brookfield viscosity 7,000-10,000 c.p. at 190°F.

The juice vesicles are homogenised at 1,000-8,000psi. and combined with sucrose, glucose, fructose, corn syrup solids, and honey. Part of the sweetener may be e.g. applie powder, dried fruit, fruit puree etc. Suitable acids are citric, succinic, tartaric, malic etc. Any starch may be used, esp. a thin boiling starch. Compsns. have a wide variety of uses, and contain an otherwise useless waste from citrus juice mfr. 31.5.79 as 043993 (8pp955)

COOP- D13 52560 B/29 =US 4232-054
ngestible compsn. contg. vegetable fibre and metallic proteinate - used in dietetic products for intestinal transit regulation
COOPERATION PHARM 18.01.78-FR-001402
*(04.11.80) *BE-873-503 A21d-13/02 A23l-01/10*

An ingestible compsn. comprises a nutritive cereal fibre and a natural metallic proteinate in amt. 5-120 parts per 100 parts of fibre. The cereal fibre is wheat bran, and the metallic moiety of the proteinate is an opt. mixt. of calcium, magnesium, iron, zinc or cobalt.

Pref. the proteinate is Ca caseinate contg. 1-2% Ca, pref. in amt. 50-60 pts. per 100 pts. of fibre. The proteinate is derived from egg- or milk protein.

The compsn. is esp. prepd. as a dietetic food prod. comprising 43 wt. % wheat bran, 20 wt. % calcium caseinate contg. 1-7 wt. % calcium, opt. 2 wt. % sodium chloride, and a balance of cereal flour. The compsn. is esp. prepd. in the form of biscuits. 16.1.79 as 003986 (3pp931)

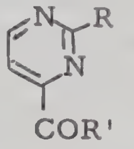
ZLLT- ★ D13 84283 C/47 ★US 4232-122
Prepn. of 3-hydroxy-ergosterol - by cultivation of Rhizopus oligosporus or oryzae ATCC 22959 or 9363
Z-L LTD PARTN 17.01.79-US-004028 (08.06.77-US-804594)
B01 E13 (D16 D21 D23 E15) (04.11.80) C12p-33

Prepn. of 3-hydroxyergosterol (I) is effected by cultivation of Rhizopus oligosporus or oryzae, esp. ATCC 22959 or 9363, respectively, on a culture medium, followed by isolation of the (I). The nutrient medium pref. comprises soyabean, when the (I) may be isolated by extrn. with 60-70% aq. MeOH or light petroleum, then the extract is evapd. etc. The MeOH extract is pref. used for molecular sieve chromatography followed by adsorption chromatography.

(I) is an antioxidant and is tasteless and colourless and so is esp. useful as a stabiliser for foods, cosmetics etc. it is described in US 4157984 (Der. 48926B). 17.1.79 as 004028 Div. ex 4157984 (6pp1248)

FIRM D13 51922 A/29 =US 4232-156
4-Acyl-pyrimidine and 2-methyl-4-acyl-pyrimidine derivs. - used as aromatising agents esp. for meat prods. and also pharmaceuticals, feedstuff, etc. (NL 13.7.78)
FIRMENICH SA 10.01.77-CH-000227
*B07 C02 E13 P15 (B03 D18) (04.11.80) *DT2800-443 C07d-239/24*

Cpds. of formula (I) (where R is H and R' is isobutyl or R is Me and R' is Me, Et or i-Bu) are novel. 4 cpds. are specifically claimed including 2-methyl-4-acetyl-pyrimidine. (I) can be prepd. by 1 of (i) 6-step process starting from urea and acetoacetic ester, (ii) 6-step process starting from 1,1,1-triethoxyethane and acetoacetic ester; and (iii) 4-step process, starting from guaridine and 2-methoxyethane carboxylic acid ester.



(I)

(I) are flavouring and taste modifying agents in the aromatisation of foodstuffs. 2.2.79 as 009390 Div ex 4166869 (+6.1.78-US-867367) (6pp977).

See Also

D16 FR 2447965 D16 GB 1579632 D16 GB 1579633
D22 EP--18386

D14: FOODSTUFF MACHINERY

VAND/ ★ D14 82937 C/47 ★EP--18-441
Hopper mixer esp. for animal feed contg. wet maize etc. - has internal downward feed screw and external upward recycling screws
VANDERMEULEN P F G 17.04.79-EP-200194
(12.11.80) A23n-17 B01f-07/16
D/S: E(CH, DT,FR,GB,IT,NL,SW).

A mixing machine, for mixing cattle feed etc. contg. ingredients such as wet maize, has a mixing hopper in the form of a downwardly convergent, truncated cone. Within the hopper, a power driven feed screw drives the contents downwards towards the base. Radial blades on the feed screw pass through fixed or spring-loaded baffles projecting inwards from the hopper wall to give a crushing and grinding action.

Each of one or more holes at the bottom of the hopper leads into a return conveyor screw tube rising up the outside of the hopper wall. Each return conveyor tube has an outlet divertor valve which can recycle material back into the hopper or discharge fully mixed prod. as required. The feed screw and return screw(s) can be operated simultaneously or independently.

Used for mixing animal feeding stuffs. The hopper can be floor mounted or raised aloft. The mixing can continue for as long as necessary. The equipment is simple and inexpensive and the mixing action very thorough. The motorised screws make the hopper self-emptying. The mixer has a wide range of applications e.g. fertilisers, chemicals.

17.4.79 as 200194 (5pp448).
(F) ISR: BE-867448; BE-864434; GB-460342.

ROCH/ ★ D14 83123 C/47 ★FR 2447-676
Manual harvester for ground level nuts etc. - traps prod. in horizontal cylindrical cage of spiral wound piano wire
ROCHE J M 31.01.79-FR-003052
P12 (03.10.80) A01d-51 A23n-05/08

Horticultural or agricultural hand tool is for harvesting nuts and small hard fruits from ground level without having to bend down. The tool comprises a horizontal, cylindrical, wire cage made up of a single wire held in spiral formation by an angle iron frame. The frame is pivoted on its central axis in a yoke with handle.

Wire is steel piano wire of 3 mm dia. and the spacings between adjacent coils is about 20-22 mm. Nuts pop in between coils which close behind them. Soft skin and husks are peeled off as the prod. passes between coils. 31.1.79 as 003052 (4pp448).

FERM= ★ D14 83874 C/47 ★SU-727-191
Root-vegetable washing - using flowing water and application of vibrating frequency which is applied in circular or vertical working mode
FERMENTATION PROD 15.11.77-SU-545699
X25 (15.04.80) A23n-13

Method for washing root vegetables, e.g. potatoes, using flowing water with the application of a vibrating frequency and simultaneous sepn of the mud. Effectiveness and intensity of the process are increased by using a vibration frequency in the range 10-17Kz and a dynamic coefft. of loading within the limits 2-6.
Khazan, S. M., Syrkin, Yu. N., Ustinnikov, B. A., et al
Bul. 14/15.4.80.15.11.77.as545699(3pp29).

LIVE= ★ D14 83895 C/47 ★SU-727-223
Disc crusher for fodder and flour production - has stationary and rotating discs with cutting elements, and plate attached with clearance to rotating disc
LIVESTOCK FARM MACH 26.08.74-SU-054963
P41 (25.04.80) B02c-07/08

The disc crusher can be used for grain crushing and can be employed for fodder, flour and cerial production. The disc crusher has a body containing stationary and rotating discs with cutting elements. The stationary disc cutting elements are connected to each other by baffles. The crusher is provided with bunker and annular or unloading bunker and an electric drive. In order to increase the crusher life and to ensure the material crushing degree, the crusher is provided with a plate attached with clearance to the rotating disc lower side and can displate along the disc axis. The rotating disc cutting elements are made as plate knives. One end of the plate knives are situated in disc slots and the other ends rest on the plate. The slots are at an angle to the disc axis and the radii. The plate is attached to the rotating disc by means of pins Kocheev, K. M., Tkach, V. D., Kulakovskii, I. V., et al Bul. 14/15.4.80.26.8.74.as054963(4pp110).

OAKE- D14 52580 B/29 =US 4231-666
Mixer having concentric rings of axial mixing elements - for producing aerated food and plastic prods.
E T OAKES LTD 10.03.78-GB-009674
*A31 J02 (04.11.80) *BE-874-734 B01f-05/06 B01f-07*

Mixing device has a rotor co-axially and statably mounte in a cylindrical housing, and axially extending mixing elements on one end wall of the housing and on the rotor. Th elements on the wall and rotor interfit, and each is define by part cylindrical surfaces and by straight surfaces forming grooves. Upon rotation of the rotor a reverse pumping action tends to resist feed of pressurized fluid.

Pref. each end wall has mixing elements. Shear effect on the mixed material is increased. 7.3.79 as 018102(6pp

D15: WATER TREATMENT

HAEG/ ★ D15 82646 C/47 ★BE-884-216
Aerator possibly float-supported for clarifying water - has motor driven submerged screw delivering to hydrodynamically streamlined vanes
HAEGEMAN J H 08.07.80-BE-884216
(03.11.80) B01d B01f C06f

On the section of the motorised shaft above the submerged screw in a machine for the mixing of a gas with a fluid and vice versa, as well as for the degasifying of a fluid, a vane wheel is fixed so that it turns with the shaft.

The vane wheel is formed by hydrodynamically streamlined vanes joined to a diffusion head. It is shaped so that it receives the fluid pushed upwards by the screw, vertically and spirals the fluid through a curve into the horizontal direction, at a speed which is at least equal to the circumferential speed of the wheel.

Used as an aerator for water purifying installations, or as a floating surface aerator. The efficiency of fast turning aerators is improved. The speed of the motor is kept as low as possible so that the cone can be increased and a large screw with a smaller pitch can be used. 8.7.80 as 884216 (9pp1014).

PROC- ★ D15 82680 C/47 ★CH-619-675
Multistage biological treatment for industrial wastes - in anaerobic tank surrounding heat supplying aerobic tank with surface aerator and baffle plate providing anti-turbulent zone
PROCESS ENG CO 04.03.79-CH-002715
(15.10.80) C02f-03/30

A plant for the multi-stage biological treatment by (an) aerobic redn. esp. of industrial wastes with a carbohydrate and protein content, consists of a central aeration tank with a surface aerator for the aerobic redn. of the fluid. A baffle plate is arranged below the aerator and the antiturbulence zone below the baffle plate contains a height-adjustable discharge pipe. The container for the anaerobic treatment of the sludge surrounds the aeration tank.

This is a space-saving plant which also saves material and uses the heat developed by the aerobic oxidation to heat the anaerobic stage. 4.3.77 as 002715 (6pp39)

FILT- ★ D15 82685 C/47 ★CH-619-871
Disinfecting ion exchange resin in water treatment plant - by injecting disinfectant in the regenerative soln.
FILTRO SA 31.01.77-CH-001217
(31.10.80) B01j-49

An installation comprises a chamber in which a disinfectants soln. is prepd. automatically when the regeneration cycle starts. Disinfectant is passed into the resin and followed by a current of rinsing water to flush out surplus disinfectant.

Chamber for prepn. disinfectant pref. comprises an electrolytic cell which produces disinfectants from a soln. of anelectrolyte partic.Bring to be used for regeneration. Disinfectant soln. is pref. applied together with the regenerating soln, not every time the resin is automatically regenerated but at longer intervals. Rinsing water used to flush through the regenerated resin is pref. used also to eliminate excess disinfectant. Disinfectants may be prepd. by dilution of a conc. prod. such as a halogenated deriv.

Used in disinfection to destroy colonies of microbes which develop onion exchange resin in water treatment plant. 31.1.77 as 001217 (5pp448)

MORA/ ★ D15 C/47 ★CS 7903-592
Coagulate densification and suspension sepn. during water processing
MORAVEC J 25.05.79-CS-003592
(31.07.80) C02f-01/52 C02f-03

MORA/ ★ D15 C/47 ★CS 7907-527
Potable water contg. fluoride ions and active chlorine
MORAVEC J 05.11.79-CS-007527
(31.07.80) C02f-01/56

KLIM/ ★ D15 C/47 ★CS 7907-999
Effluent processing
KLIMECEK R 21.11.79-CS-007999
(31.07.80) C02c-05/02

BIOT- ★ D15 C/47 ★DK 7901-219
Removal of mercury cpds., from basic aq. liquids
BIOTEKNISK INST 26.03.79-DK-001219
J01 M25 (27.10.80) C02f-01/70

UNIC D15 13330 X/08 =DS 2531-338
Removing ammonium ions from water - contg alkali(ne earth) ions by cation exchange with phillipsite-gismondite zeolite
UNION CARBIDE CORP 15.07.74-US-488503
*E35 (13.11.80) *DT2531-338 +C02f-01/42*

Ammonium ions are removed from waste water contg. alkali and alkaline earth ions in addn. by passing the water through a bed of aluminosilicate zeolite with the structure of phillipsite or gismondite.

The zeolite has a high selectivity for ammonium ions and is easily regenerated. Sec. sewage effluents may be so treated. 12.7.75 as 531338 (4pp068).

RHON D15 09311 Y/06 =DS 2634-126
Aluminium hydroxy chloride compsn. esp. for treating soft water - contains sulphate and aluminium complexing organic anion
RHONE-POULENC INDUSTRIES 31.07.75-FR-023926
*E33 (13.11.80) *BE-844-677 C02f-01/52*

Impure soft water with a hardness < 60 mg $CaCO_3$ per litre is purified by treatment with a basic aluminium chloride flocculation agent. The agent contains per gram atom Al, 0.05-0.3 moles of sulphate anion and 0.01-0.1 moles of $\geqslant 1$ of the anions of citric acid, sulphosalicylic acid, 1,2-dihydroxybenzene-3,5-disulphonic acid and chromotropic acid. The agent pref. has a basicity (ratio of OH/Al) of 1.2-1.7. The organic anions may be present as the acid or as the ammonium or alkali metal salt. 29.7.76 as 634126 (4pp068).

OCEA- D15 07602 Y/05 =DS 2641-830
Recovery of pollutants from water - esp. oil from oil slicks by use of ultrasonic energy
OCEAN ECOLOGY LTD 19.09.75-US-615114
*H03 Q42 +P43 Q24 (13.11.80) *BE-846-363 E02b-15*

Slicks of oil or sawdust or other contaminants which float on water are removed by an immersed ultrasonic wave nerator. The ultrasonic waves are concentrated by a flector to locate the intersection of all waves at the ater/oil interface. The generator is supplied with electcal energy and is directed pref. at an angle near an erflow partition. Parts of the oil slick are thereby procted in an arc over the partition and into an oil collection nk.

The energy radiated by the generator can be easily atched to various floating layers. Only the particles of e latter are projected above the overflow. 17.9.76 as 41830 (6pp39).

ODI- ★ D15 82810 C/47 ★DT 2918-820
repn. of particulate materials for reaction - using premixer with mall volume and high agitation to mix reagents with feed followed y larger volume reactor
GEBR LODIGE MASCH G 10.05.79-DT-918820
J02 P41 (13.11.80) B01f-13 B03b-09/06

articulate and flowing solids are treated by first mixing hem in a relatively small volume distribution mixer which orms a ring inside it. It has separate inlet ports for the eed and the reactants.

The outlet from this discharges into the main reactor hich also operates continuously. This is of proportionaly larger volume and contains a mixer element which otates slowly. The outlet from the reactor discharges nto a cooler. The feed to the premixer is via a fall pipe.

For mixing waste materials such as slurries or oil ontg. sludge and mixing in reactants. The process enures that the reaction only gets under way when the reactants have been well mixed into the feed even when the eaction initiates rapidly after mixing. 10.5.79 as 918820 16pp1053).

MEIE/ ★ D15 82823 C/47 ★DT 2919-532
Automatic system for foul sludge fermentation - having vessel with upper and lower chambers with weir over which liquor flows if pressure in lower chamber is released
MEIER K 11.05.79-DT-919532
(13.11.80) C02f-11/04

Process for recovering CH_4 etc. as fuel from foul sludge as a vessel with an upper and lower chamber. A line uns from the base of the lower chamber into the base of e upper chamber. The upper chamber contains a float. s anaerobic fermentation occurs, a pressure develops bove the liquid in the lower chamber causing liquid to dis place up into the upper chamber.

In the centre of the lower chamber there is a conical eir. This has a non-return valve mounted in the pipe elow it. As liquid is displaced to the upper chamber, the evel inside the weir drops. However, if the pressure is eleased and the liquor flows back, the valve prevents it ising inside the weir. The liquor then overflows over the eir and any surface crust gets broken up.

Used for processing agricultural waste to a useful fuel. ses the "Berlin System" but allows automatic cycling of e liquid surface to break up crust merely by releasing e system pressure periodically. 11.5.79 as 919532 10pp1053).

METG D15 79418 B/44 =EP G004-986
Appts. for treating cooling water with hypochlorite - has fixed orizontal distribution pipe with depending plastics pipes of lifferent lengths
METALLGESELLSCHAFT AG 17.04.78-DT-816522
*A88 (12.11.80) *EP---4-986 B01j-04 +C02f-01/52*
/S: E(BE, CH, DT, FR, GB, IT, LU, NL, SW)

ppts. for supplying dissolved chemicals into horizontally lowing water is claimed comprising a manifold disposed bove the water level and provided with discharge hoses which differ in level and provided with discharge hoses which differ in length and which have outlet openings evenly distributed throughout the cross-section of flow. The manifold and the discharge hoses are of a chemicals-resistant material, e.g. PTFE, PVC or polypropylene.

The appts. used e.g. to supply Cl-contg. chemicals to ooling water streams to disinfect them, provides more even and more effective distribution of the chemicals by a simple arrangement. 3.4.79 as 200159 (4pp922) (G)

MCGR/ D15 79078 B/43 =EP --18-366
Accelerated chemical reaction at increased pressure - in subterranean well with feed liquid proving hydrostatic pressure
MCGREW J L 17.03.78-US-887506
*(12.11.80) *WP7900-791 +C02f-01/72*
D/S: E(CH, DT, FR, GB, SW)

16.3.79 as 900328

SALA- D15 82521 B/45 =EP --18-367
Apparatus for dissolving gases in liquid - with axial flow pump impeller drive shaft encased to form gas passageway
SALA INT AB 31.03.78-SW-003691
*J02 Q56 (12.11.80) *WP7900-864 B01f-05/12 F04d-19 F04d-31*
D/S: E(FR)

30.3.79 as 900330

WEBB/ D15 85915 B/47 =EP --18-374
Apparatus for adding gas to liquid - including vertical tube into bottom of which gas is bubbled
WEBB W G 06.04.78-US-894055
*J02 (12.11.80) *WP7900-895 B01f-03/04 +C02f-01/74*
D/S: E(DT, FR, GB)

4.4.79 as 900425

BOEF D15 03746 C/03 =EP --18-392
Increasing biological breakdown of toxic waste water - by gradually adapting bacteria to increasing concn. of toxin
BOEHRINGER MANNHEIM GMBH 03.07.78-DT-829142
*(12.11.80) *DT2829-142 C02f-03/12*
D/S E(CH, DT, FR, GB LU, OE, SW)

26.6.79 as 900677 (WP 8000148)

ESSO ★ D15 83078 C/47 ★EP --18-852
Selective adsorption of naphthalenic Hydrocarbon s) from waste water - using an activated carbon bed through which waste water stream passes
EXXON RES & ENG CO 07.05.79-US-036336
E14 H05 (12.11.80) C02f-01/28
D/S: E(DT,FR,GB,NL,SW).

Naphthalenic hydrocarbons are removed from a waste water stream by (a) passing the stream (6) through a bed (8) of activated carbon which is or has become satd. w.r.t. its ability to adsorb non-naphthalenic hydrocarbons; (b) monitoring the effluent stream (9) from the bed to determine the concn. of naphthalenic hydrocarbons in it; and (c) discontinuing passage of the stream through the bed when the concn. of naphthalenic hydrocarbons in the effluent stream exceeds a predetermined value, e.g. 2 ppm.

Malodorous and toxic materials may be selectively removed from aq. effluents from petrochemical operations and petroleum refining using a process with a relatively short contact time (e.g. 3-10 mins.). Regeneration costs are low.

7.5.80 as 301484 (22pp558).
(E) ISR: FR2340910; DT2654937; FR2251525; CH--85564.

RAYE/ ★ D15 83164 C/47 ★FR 2448-001
Purificn. of polluted water partic. to remove fuel oil - by filtration through elements sunk in inclined plane down which water flows
RAYER F 01.02.79-FR-002672
J01 Q42 (03.10.80) C02f-01/40 E02b-15/04

Process and appts. for filtering polluted water to produce a purified filtrate are claimed. The water is directed to flow down an inclined plane which has openings into passages each contg. a filter element. Pollutants are trapped in the filter element and the filtrate is discharged at the lower ends of the passages.

The inclined plane is pref. supported on the hypotenuse sides of two parallel, right-angled triangular plates spaced and joined by parallel vertical panels at right angles to the plates. (Pref. removable) filter elements fit into the vertical passages between the panels. The side plates of the inclined plane unit are pref. made of wood.

Several modular units can be bolted together alongside each other.

The filter units can be fitted on the bow of a ship or installed on the sea-shore or river bank.

The construction of the filter unit is cheap and simple. Wave action etc. is all that is needed to bring water to the top of the inclined plane. Periodic changing of filter elements is the only regular servicing required. 1.2.79 as 002677 (9pp448).

CNSM D15 02580 A/02 =GB 1579-277
Anaerobic sewage treatment - in combined tank with pumpless sludge and fluid circulation for gas collection and extraction (BE 27.12.77)
CENTRALE SUIKER MIJ NV 24.06.76-NL-006904
*(19.11.80) *DT2728-585 + C02f-03/28*

Apparatus for anaerobic purification of waste water includes a vessel with a lower fermentation zone with waste water inlet, and an inclined partition between this and an upper settling zone with purified water outlet. An upper and a lower opening permit passage of sludge-water mixture from lower to upper, and upper to lower zone respectively.

Baffles associated with the openings prevent any gas developed from passing through the openings, the gas passing to a separate outlet. The upper opening is pref. in the partition, which is attached to the vessel to form a gas collection space, or is between the vessel wall and a spaced parallel inner wall attached to the partition upper edge. 24.6.77 as 026551 (8pp1358).

NATR ★ D15 83180 C/47 ★GB 1579-320
Surface active polymer with pendant ionic gps. - useful as catalyst for cpds. in immiscible phases and for extracting e.g. hydrophobic species from water
NATIONAL RES DEV CORP 03.12.75-GB-049666
A97 E19 J04 (19.11.80) C02f-01/28 C08f-08/30

Surface active polymers are claimed, insoluble in water or organic solvents, and carrying quaternary ionic species attached to the polymer backbone by hydrophobic aliphatic chains of $\geqslant$6C. The ionic species are pref. trialkylammonium or trialkylphosphonium gps..

The polymers are useful as catalysts for reactions between cpds. in separate immiscible phases. 25.2.77 (3pp955)

DIAP- D15 04729 A/03 =GB 1579-335
Removing nitrate ions from water - using ion exchange resin contg. crosslinked vinyl polymer matrix bonded with amidine gps.
DIA-PROSIM LTD (DIAS) 03.07.76-GB-027781
*A91 (19.11.80) *DT2729-418 C08f-08/32*

Water swellable ion exchange resin used in the selective removal of nitrate ion from water comprises a polymeric matrix (pref. a vinyl polymer cross-linked with divinyl benzene) and amidine gps. of formula NR=C-NQR chemically bonded to the matrix. Q is H or 1-4C alkyl and both R are 1-6C alkyl or one is 1-6C alkyl and the other benzyl. R and Q together provide $\leqslant$12 C pref. 4-9 (esp. 5-7)C. Pref. R are (m)ethyl, propyl or butyl esp. one R is ethyl and the other butyl.

The resin is prepd. by reacting cross-linked polyacrylate with a prim. amine to form a polyacrylamide, halogenating this to form the polyimidoyl halide and reacting this with a prim. or a sec. amine. 21.6.77 (5pp918).

CLOU/ D15 88212 Y/50 =GB 1579-623
Filtration medium for biological treatment of waste water - support esp. of plastic coated with granular material
CLOUGH G F G (ICIL) 08.06.76-GB-023602
*A88 (19.11.80) *BE-855-426 + C02f-03/10*

Filtration medium for biologically treating waste water in an aerated filter comprises pieces of inert material with a coating of granular material adhered to at least some and pref. all of the surfaces.

The granules are pref. of activated carbon or sand and are attached with adhesive. The arrangement increases effective surface area and improves performance. The pieces are e.g. of ceramic or plastics such as alternating plain and corrugated PVC sheets. 26.5.77 (3pp).

MORE/ D15 52276 Y/30 =GB 1579-6
Fermentation of organic waste, household refuse, sewage, etc. - anaerobic digester cells producing methane gas
MOREL P 17.02.77-FR-005174 (01.04.76-FR-010364)
*E17 H09 + P41 (D16) (19.11.80) *BE-852-781 C02f-03/28 C0*
11/04 + C07c-09/04

Household refuse and other organic waste is crushed finely after removing metal and glass, optionally mixed with further organic material and as sludge is charged to a cell for oxidation with periodic agitation in the presence of methanigenic microorganisms and in an O-containing atmosphere.

The sludge is then transferred to one or more further cells with a CO_2 atmosphere to create anaerobic conditions for prefermentation and fermentation with supplementary substrate injected in one or both stages to supply additional microorganisms. Excreta and sewage sludge are pref. mixed with the refuse and CH_4 is recovered from the further cells which are operated at 37.5-41°C. 28.3.77 as 012940 (8pp1358).

COJA- D15 30288 Y/17 #GB 1579-65
Multistage evaporator for desalination of seawater - in which throughput can be halved without alteration of press. and temp.
COJAFEX BV 13.10.75-NL-011990 (31.03.77-GB-013634)
*J01 (19.11.80) *NL7511-990 B01d-01 B01d-03/06*

A multi-stage flash evaporator, particularly for seawater disalination, has a liquid path through two or more chambers in a vertical or inclined stack. Each chamber has a slot inlet diverging into an evaporation passage along a downwardly curved path with its cross-section increasing from inlet to outlet.

A liquid reservoir is formed as an inverted syphon with an inlet from the passage outlet and an outlet communicating with the succeeding chamber inlet with the reservoir between lower than the chamber inlet. A vapour outlet for each chamber is pref. at least partially surrounded by the passage inlet wall and the reservoir is of rectangular cross-section and converges towards its outlet. 31.3.77 as 013634 (11pp1358).

ZEST- ★ D15 83194 C/47 ★GB 2046-62
Treatment of effluents contg. alkali metal hydroxide(s) - with strong base ion exchange resins which are regenerated with chloride salts
ZEST INVESTMENTS LT 20.04.79-GB-013736
(19.11.80) C02f-01/42

Effluents contg. an alkali (as hydroxide) are treated by passage over a strong base ion exchange resin (Cl^- form). The resin is then regenerated using a chloride salt.

Suitable resins include 'Duolite A102B' (RTM) and 'Amberlite IRA410'(RTM). Pref. the pH of the treated H_2O is monitored and regeneration of the resin is started when the pH reaches 8.3-8.8. Regeneration is pref. with 8-12% brine.

Inexpensive, economical method is esp. useful for the treatment of aq. effluents from bottle washing machines (for recycle) or waters that are to be treated further e.g. by reverse osmosis. 20.4.79 as 013736 (4pp478).

WATE- ★ D15 83195 C/47 ★GB 2046-621
Convertible dual container storage system - in which liq. stored in one container is periodically required for use in another container e.g. ion exchange and water softening
WATER REFINING CO 19.03.79-US-021738
J01 (19.11.80) B01j-47/02

Convertible dual container storage system in which a liq. stored in one container is periodically required for use in a second container comprises a first vertical cylindrical container positioned within a second vertical cylindrical container having a larger dia. than the first. A circular ridge extending upwardly from the base of the second container partially surrounds and positions the first container in the second. The containers are in fluid communication with each other and a cover which fits completely over the first container forms a seal with the m of the second container. 18.3.80 as 009027 (5pp67).

HI ★ D15 83286 C/47 ★J5 5129-103

evice for sepn. of liquids e.g. factory waste - has selectively ermeable membranes arranged in parallel through spacers to orm a planar filter assembly

ISHIKAWAJIMA-HARIMA HEAV 27.03.79-JA-035776

J01 (06.10.80) B01d-13

A device for separating a solution such as dense liquids containing valuable substances, drained from factories, and waste water, os claimed. It uses a selective permeable membrane for separation into a filtrate and concentrated liquids. The object is to easily assemble the device and ncrease and reduce the capacity of the device by adding or removing membrane elements.

The elements are arranged in parallel through spacers to form a planar filter assembly. Each element consists of a pair of support rectangular plates 11 laminated one above another through a spacer 19, and two selective membranes laid on the outer sides of the plates. 27.3.79 as 035776 (7pp)

NITL ★ D15 83287 C/47 ★J5 5129-104

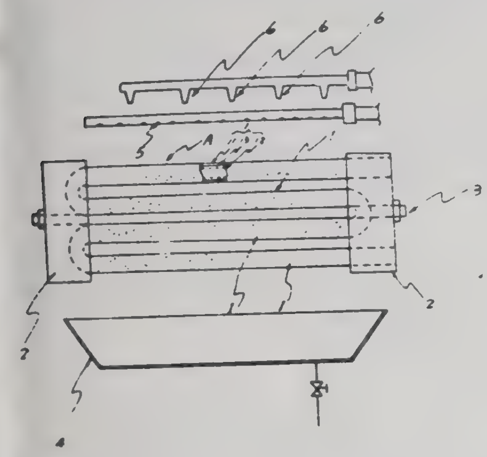
Sterilisation of sepn. appts. having tubular membranes - used to separate solute or solvent from soln. by reverse osmosis or ultrafiltration

NITTO ELECTRIC IND KK 27.03.79-JA-036711

P28 (D22) (06.10.80) A23l-01 A47j-19 B01d-13 C12m-01/12

The method comprises dropping or spraying a solution of a sterilising agent onto the outer surface of tube type membranes secured to a sepg. appts. wherein the tube type membranes are exposed out of the appts. The syerilising agent is formalin, hydrogen peroxide, sodium hypochlorite, chlorine water, citric acid, or EDTA.

In fig. 1, a tube type membrane (1) is secured between supporting plates (2). The membrane consists of a porous supporting tube (11), a tube type membrane (12), and a cloth tube (13). A sterilising soln. is sprayed from a nozzle (5) onto the tube type membrane, and washing water is sprayed from a nozzle (6). 27.3.79 as 036711 (3pp51)



NITL ★ D15 83289 C/47 ★J5 5129-106

Agent for washing membranes - comprises an aliphatic halogenated and/or aromatic halogenated hydrocarbon, and alkyl phenol polyoxyethylene ether, oxalic or citric acid

NITTO ELECTRIC IND KK 28.03.79-JA-037600

H07 J01 (06.10.80) B01d-13 B01d-31

Agent for washing a selectively permeable membrane, e.g. a reverse osmosis membrane or an ultrafiltration membrane, from which organic substances deposited on the membrane are removed is described. The agent is obtd. by mixing 100 pts.wt. of 1-4C aliphatic halogenated hydrocarbon and/or 6-7C aromatic halogenated hydrocarbon with 10-500 pts.wt. of alkyl phenol polyoxyethylene ether to obtain a mixt. and mixing 1-7 pts.wt. of the mixt. with 0.1-5 pts.wt. of oxalic acid or citric acid and the balance water.

The aliphatic halogenated hydrocarbon is CH_2Cl_2, $CHCl_3$ CCl_4, dichloroethane, trichloroethane. perchloroethylene, tetrachloroethane, dichloropropane, trichloropropane, butyl chloride, or dichlorobutane. The aromatic halogenated hydrocarbon is mono, di or tri-chloro benzene, mono or di-chlorotoluene, hexachloroethane, or p-dichlorobenzene. 28.3.79 as 037600 (4pp51)

NITL ★ D15 83290 C/47 ★J5 5129-107

Washing process for selectively permeable membrane - used in ultrafiltration of waste soln. from e.g. cheese mfr. plant, using aq. oxidising or reducing agent soln.

NITTO ELECTRIC IND KK 28.03.79-JA-037601

E37 (06.10.80) B01d-13 B01d-31

In a selectively permeable membrane used for treatment of a soln. contg. an aluminous substance to purigy it, the improvement comprises washing the membrane with an aq. soln. of an oxidising agent or a reducing agent when contamination index of the membrane surface (represented by formula of chemical oxygen demand (PPm) and distn. residue (PPm)) is increased to >0.3.

The oxidising agent is chlorine, Na hypochlorite, Na chlorite, hydrogen peroxide, ozone or Na percarbonate. The reducing agent is hydrogen iodide, hydrogen sulphide, Al hydride, CO, Na sulphide, Na thiosulphate, formaldehyde or acetoaldehyde. In an example an ultrafiltration appts. equipped with a tube type membrane was used in treatment of a waste soln. exhausted from a cheese producing factory at 15°C under a pressure of 3.5 kg/cm^2 for 1 month. The used membrane was washed with an aq. soln. of hypochlorite to obtain a purified membrane. 28.3.79 as 037601 (4pp51)

NITL ★ D15 83291 C/47 ★J5 5129-108

Prepn. of tube-type permeable membrane - comprises laminating nonwoven cloths with liq. contg. cellulose acetate acetone and formamide

NITTO ELECTRIC IND KK 28.03.79-JA-037602

A88 J01 (A18 A35) (06.10.80) B01d-13 B01d-31

Membrane is obtd. by laminating several non-woven clothes to form a laminated type porous fibre tube, and coating this with a liq. for prodn. of a permeable membrane on the inner or outer surface of the fibre tube, and immersing the impregnated tube in a coagulation bath. The non-woven cloth consists of fibres of polyester, polyethylene, polypropylene, polyamide, or polyacrylonitrile.

In an example a polyester non-woven cloth of 110 μ thickness and a polyester non-woven cloth of 160 μ thickness were laminated to form a porous fibre tube. 150 g. of cellulose acetate 500 g. of acetone, and 300 g. of formamide were mixed to obtain a liq. used to produce a permeable membrane. The liq. was impregnated into the fibre tube with a pressure of 1 kg/cm^2. The impregnated tube was then immersed in water of 1°C to obtain a tube type permeable membrane. 28.3.79 as 037602 (5pp51)

NITL ★ D15 83292 C/47 ★J5 5129-109

Semipermeable membrane - comprising central layer having minute pores and surface layers having large pores, the layers being made of e.g. EVA copolymer

NITTO ELECTRIC IND KK 28.03.79-JA-037603

A88 J01 (A18 A35) (06.10.80) B01d-13 B01d-31

Membrane comprises central layer of minute pores and surface layers of large pores . The central layer and the surface layers are made from the same polymer in one body. The diameter of the minute pores is 0.02-0.1 μ, and that of the large pores is 0.2-0.5 μ.

The membrane is obtained by shaping a hydrophilic polymer, e.g. EVA copolymer, in water to form porous film, immersing the porous film in a water soluble organic solvent to substitute one portion of water contained in pores of the membrane with the solvent, heating the resulting film to evaporate a mixt. of water and solvent from the pores of the film, and forming central layer of minute pores and both surface layers of large pores. 28.3.79 as 037603 (5pp51)

AKAO- ★ D15 83293 C/47 ★J5 5129-110

Electrodialysis of salt water - includes degassing salt water prior to passing to concentrating chambers

AKAO KAISUI KAGAKU 30.03.79-JA-036937

(06.10.80) B01d-13/02

Electrodialysing a salt water such as sea water upon producing a fresh water or concentrating salts is claimed. The device comprises an electrodialysing tank contg. cation and anion exchange membranes alternately arranged between opposite electrodes to form concentrating and dil uting chambers, a concn. liquid circulating system and diluting liquid feeding and draining system. The object is to avoid bubbling in the concentrating chambers, because bubbles increase an electric resistance of the tank.

Improvement is that the salt water to be fed into each concentrating chamber is previously degassed by means for degassing the conc. liquid in its circulating system. 30.3.79 as 036937 (4pp26)

NITL ★ D15 83294 C/47 ★J5 5129-111
Tubular, permeable plastics membrane prodn. - by first coating soln. of ethylene-vinyl alcohol copolymer on inner surface of nonwoven cloth supporting tube
NITTO ELECTRIC IND KK 28.03.79-JA-037604
A88 J01 (A18 A35) (06.10.80) B01d-13/04

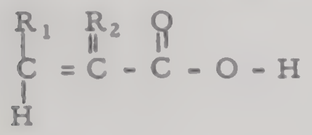
Process comprises (a) coating a soln. of ethylene-vinyl alcohol copolymer on the inner surface of a non woven cloth type supporting tube to form a coated layer; (b) introducing air of linear velocity >4m/secs. into the coated tube for 1-180 seconds to evaporate a solvent from the coated layer; and (c) immersing in a coagulation bath to produce a tube type permeable membrane.

In an example, an ethylene-vinyl alcohol copolymer contg. 30 mol.% ethylene was dissolved in a mixed solvent of isopropanol and water to obtain a soln. The soln. was coated in 300 μ thickness on the inner surface of a polyester non-woven cloth tube. Air at 25°C was introduced into the tube to evaporate solvent from the coated layer. The resulting tube was immersed in a coagulation bath of water 28.3.79 as 037604 (6pp51)

NITL ★ D15 83295 C/47 ★J5 5129-112
Permeable membrane prodn. - by graft polymerising a vinyl monomer onto a thermoplastic film
NITTO ELECTRIC IND KK 29.03.79-JA-038048
A88 J01 (A18 A35) (06.10.80) B01d-13/04 C08j-07/16

The method comprises applying radioactive rays to a thermoplastic film in the presence of O_2 to form hydroperoxide or peroxide in the film, contacting the resulting film with a mixed soln. of a vinyl monomer possessing electroconductivity and modified vinyl monomer, and thus graftpolymerising both vinyl monomers with the film to produce a permeable membrane.

The plastic film consists of polyethylene, polypropylene, PTFE. The vinyl monomer or the modified vinyl monomer is an unsatd. carboxylic acid or a reducible metal salt of the acid, where the acid is of formula (I) where R_1 is H, COOH, or <11C alkyl; R_2 is H, CH_2COOH, or <6C alkyl. The acid is e.g. acrylic acid, methacrylic acid, crotonic acid, maleic acid, or itaconic acid. 29.3.79 as 038048 (7pp51)



$$\overset{R_1}{\underset{H}{C}} = \overset{R_2}{\overset{\|}{C}} - \overset{O}{\overset{\|}{C}} - O - H$$

(I)

NEGI/ ★ D15 83296 C/47 ★J5 5129-113
Filter element for sepg. oil from water - consists of layer of inorganic fibres and asbestos on porous substrate
NEGISHI S 29.03.79-JA-037808
(06.10.80) B01d-17/02

Filtration element is provided used for separating oil from a mixt. to obtain pure water. The filtration element is produced by mixing 99.7-80 wt.% of an inorganic fibre with 0.3-20 wt.% asbestos and laminating the mixture on the surface of a porous body. The mixed oil and water is permeated from the laminated surface of the porous body to the opposite surface to separate the oil from the water. The fibre material is glass fibre, stainless steel, ceramic or metal.

In an example 100g. glass fibre, 2g. asbestos, and 3 ℓ of water were mixed. The mixt. was laminated to a 5mm thickness on the surface of a porous cylinder body consisting of sintered metal. Impure water containing 10% kerosene was passed through the element to obtain pure water. 29.3.79 as 037808 (3pp51)

NITL ★ D15 83297 C/47 ★J5 5129-114
Treating oil and metal (ion)-contg. waste water - by membrane sepn. methods
NITTO ELECTRIC IND KK 29.03.79-JA-038044
(06.10.80) B01d-17/02

Process for treating waste water contg. oil, metal micro powders and/or metal ions by membrane sepn. is described in which after the micropowder and/or metal ions is removed, the resulting waste water is treated by ultrafiltration or reverse osmosis.

Powder or metal ions are removed previously by sedimentation, centrifugal sepn., filtration with a paper (cloth) filter etc. Process is used to treat waste water obtd. when metal materials are processed (e.g. Cu or steel plate is shaved, cut or extended etc.). 29.3.79 as 038044 (3pp)

MITQ ★ D15 83298 C/47 ★J5 5129-115
Water deaeration device for ultrasonic flaw detector - is designed to be used without pumps or motors and includes pressure tank divided up to form meandering path for flow of water
MITSUBISHI ELECTRIC CORP 30.03.79-JA-037864
(06.10.80) B01d-19

Device for feeding a deaerated water to an equipment such as ultrasonic flaw detectors, medical equipment or a boiler is claimed which comprises a pressure tank partitioned into several chambers so as to form a meandering water flow passage in the tank. The tank is connected to a water source through an electromagnetic valve and pressure reduction valve and has a drain port at the bottom. The drain port is connected to the detector etc. through a filter, magnetic valve, and regulator valve.

The object is to provide a device operable without using any pump or motor. A magnetic valve, safety valve and water level detector are connected to a top ort and operated so that the water is deaerated by utilising the pressure of the water fed from the source. 30.3.79 as 037864 (3pp)

SHIF ★ D15 83300 C/47 ★J5 5129-117
Sludge dewatering device - has elastic tubular filter cloth attached at respective ends to sludge hopper and diaphragm
SHINMEIWA IND KK 30.03.79-JA-038565
(06.10.80) B01d-33/04 C02f-11/12

Sludge dewatering device comprising a circularly bent screen and a tubular elastic filter cloth on the inside surface of the screen. The top end of the filter cloth is connected to a sludge hopper and the lower end is connected to a diaphragm. A rotator bar is rotatably supported by a shaft at the centre of a circle, along which the screen is laid. A roller is mounted on each end of the bar so that the filter cloth is pressed by the roller to the screen during rotation of the rotator. The filter cloth may be laid on an elastic tube having perforations.

The device has a compact size and operates with a high efficiency. 30.3.79 as 038565 (5pp)

HITA ★ D15 83301 C/47 ★J5 5129-118
Controlling operation of filter units - with filter flow rate optimised according to amt. of raw water
HITACHI KK 30.03.79-JA-036942
(06.10.80) B01d-37/04

Method for controlling the filtering operation of filtering ponds in a water purifier field is described. Raw water is fed into the ponds from sedimentation ponds and then fed into a water purification plant.

Improvement is that the average feed rate of water to the purification plant is calculated in time and the water level in the first stage of the filtering ponds is measured to determine the number of the filtering ponds to be used for filtration from both the average feed rate and water level, so that each filtering pond is operated at a good filtering rate.

Optimum filter flow rate is provided according to amt. of raw water in sedimentation pond. 30.3.79 as 036942 (4pp)

A ★ D15 83302 C/47 ★J5 5129-119
ntrolling operation of filter units - with number of units operated
nged automatically with total filtration rate
HITACHI KK 30.03.79-JA-038669
(06.10.80) B01d-37/04

ethod for controlling the operation of filtering ponds for tering water fed from sedimentation ponds is described. e number of filtering ponds to be operated is changed tomatically in accordance with the total filtration rate, thout distrubing the operation of the ponds under operatn. The water feed rate Fx and level in the sedimentation nds are applied to a calculator for calculating required tal filtration rate, which is applied to a distributor. It ovides signals for switching filtrating valves of filtering nds to be added to or subtracted from the operating ones d filtrate drain valves of the former ponds through slow arters to avoid the disturbance.

Used specifically in the purificn. of water. 30.3.79 as 38669 (4pp)

ITA ★ D15 83303 C/47 ★J5 5129-120
perating filtration unit system - using units with higher filtering
esistance as filtration amt. increases
HITACHI KK 30.03.79-JA-038670
(06.10.80) B01d-37/04

s the filtration amt. increases, some filtering ponds aving longer filtering cumulative times or higher filtering esistances are selected among those waiting for filtration nd switched to the filtration process. As the filtration mt. decreases, some filtering ponds having shorter filtering cumulative times or lower filtering resistances are elected among those under operation and switched to the waiting process.

The cumulative filtering time is measuring by an integrating timer and the siltering resistance is measured from he difference between the water heads at the upper and ower layers of the filtering bed of each pond. 30.3.79 as 038670 (7pp)

HITA ★ D15 83304 C/47 ★J5 5129-121
Controlling filter unit operation - with number of units used
changed according to relationship between required flow rate and
preset values for individual units
HITACHI KK 30.03.79-JA-038671
(06.10.80) B01d-37/04

Method for controlling the operation of several filtering ponds in a water purification plant is described, each pond being of quick-operation type. Adequate, max. and min. filter flow rates of each pond are previously set. When required total filter flow rate exceeds or will exceed the sum of the max. or min. filter flow rates of the ponds under operation, the number of ponds is increased or decreased so that all the filtering ponds are operated at the respective adequate filter flow rates. 30.3.79 as 038671 (3pp)

HITA ★ D15 83305 C/47 ★J5 5129-122
Operating filtration unit system - with one unit released from control
sequency without stopping operation of other units
HITACHI KK 30.03.79-JA-038672
(06.10.80) B01d-37/04

Method for operating several filtering ponds in a water purification plant is described. They are operated in accordance with an automatic control sequence for operating them at all times without attendance of an operator. One of the ponds can be released from the control sequence without stopping the other ponds' operating functions, in the event of a fault.

Improvement is that all the operating appts. of the pond to be taken out of the system are stopped to switch it to a waiting state, while those of other ponds are left as they are to continue the filtering operation. The released operating equipment is then checked and repaired if necessary. 30.3.79 as 038672 (4pp)

HITA ★ D15 83306 C/47 ★J5 5129-123
Filter unit operation indicator - comprising lamp assembly including
lamp for each unit
HITACHI KK 30.03.79-JA-038673
(06.10.80) B01d-37/04

Appts. for indicating operation of filter ponds in a water purification plant is described. Means is provided for clearly identifying the operating conditions in a narrow monitor range for an operator.

Appts. comprises process indication lamps for several processes in each pond. Each lamp blinks when the corresponding filtering pond is switched from one process to another or a part of operating equipments of the pond is operating. The lamp turns to continuously illuminate when the operation in the switched process becomes stable. The process includes a filtration waiting, filtering, wash-waiting, washing, and crease processes. 30.3.79 as 038673 (3pp)

SUKI- ★ D15 83307 C/47 ★J5 5129-125
Filter medium prodn. - by laminating paper discs without redn. of
effective filtering area during lamination
SUKIMOTO KAGAKU KEN 29.03.79-JA-037299
J01 (06.10.80) B01d-39/18

Method for producing a filtering medium consisting of laminated paper discs for filtering off impurities contained in lubricant oils, fuel oils and waste waters is claimed. Object is to avoid redn. of effective filtering area of the medium during lamination. Novelty is in that raw papers laminated on a table are cut by a cutting blade mounted on the lower end of a centre pipe opened at both ends to remove cut paper pieces through it. Pipe is connected to a rotating drive to turn the blade, which extends along a circle, along which the papers are cut off. They have centre openings. 29.3.79 as 037299 (2pp)

MITU ★ D15 83329 C/47 ★J5 5129-157
Regenerating ion-exchange resin by electrolysis - by packing in
chamber and passing current across electrodes with passage of
desalinated water
MITSUBISHI CHEM IND KK 29.03.79-JA-037350
J01 (J03) (06.10.80) B01j-49

Process comprises loading the ion-exchange resin to be regenerated into a regenerating chamber (cation-exchange resins are loaded into the anode regenerating chamber and the anion-exchange resins into the cathode regenerating chamber), and passing on electric current across the electrodes while passing desalinated water into the chamber laoded with ion-exchange resins.

Appts. consists of an anode regenerating chamber equipped with the anode, supporting electrolytic soln. chamber and the cathode regenerating chamber equipped with the cathode, and the supporting electrolytic soln. chamber neighbours with the anode regenerating chamber through the anion-exchange membrane and with the cathode regenerating chamber through the cation-exchange membrane.

Use of regenerating agent is eliminated. 29.3.79as 037350 (4pp96)

SUMQ ★ D15 83334 C/47 ★J5 5129-188
Treating dust contg. water - with pH-adjusting agent and calculated
amt. of flocculant then using settling appts.
SUMITOMO METAL IND KK 29.03.79-JA-038036
(06.10.80) C02f-01/52

Dust-contg. water discharged from a wet-type dust collector is treated with pH-adjusting agent and flocculant, followed by settling treatment by means of settling appts., e.g. thickener and clarifier etc. Samples of pre-determined size of the pH-adjusted water are collected, different cores of solns. of flocculant are added to each of the samples and the transparency of each is measured. Increasing rates of the transparency in the flocculant concns. from each of the measured transparencies are calculated and are compared with a pre-determined standard increasing rate to find the flocculant concn. to be added to the dust-contg. water. By this method a proper concn. is determined rapidly by a simple procedure without any excess consumption of flocculant, and the quality of the dust-contg. water thus treated is very good. 29.3.79 as 038036 (3pp34)

HASH/ ★ D15 83335 C/47 ★J5 5129-189
Treating fluoride and phosphate-contg. effluents - by passing through natural or artificial carbide contg. calcium or magnesium carbonate
HASHIMOTO S 30.03.79-JA-038472
E36 (06.10.80) C02f-01/58

Fluoride and phosphate ions are removed from effluents by passing effluent through a natural or artificial carbide layer contg. 1-80% of Ca carbonate or Mg carbonate. The natural carbide is e.g. coal etc., and the artificial carbide is e.g. wood charcoal and is actuated charcoal etc. When the F^- - and PO_4^{3-} -contg. effluent is passed through the carbide layer containing 1-80% of Ca carbonate or Mg carbonate, a portion of the Ca or Mg carbonate is dissolved and reacted with F^- and PO_4^{3-} ions to form corresp. salts which are deposited on the carbide layer.

When the effluent to be treated is acidic, the effluent passing rate or amt. of the carbonate to be added is adjusted in accordance with the pH of the effluent, and therefore the pH of the effluent passed through the carbide layer is always maintained in neutral range. 30.3.79 as 038472 (3pp34)

MITO ★ D15 83336 C/47 ★J5 5129-191
Treatment of dithionic and poly:thionic acids in waste water - by converting to sulphuric acid by oxidn. with granular microorganisms under aerobic conditions using iron sulphide as nutrient source
MITSUBISHI HEAVY IND KK 29.03.79-JA-036235
E36 J01 (06.10.80) C02f-03/02

Dithionic and polythionic acids in waste waters, e.g. from wet exhaust gas desulphurisation etc. are completely converted by biological oxidn. to H_2SO_4 by growth of granular microorganisms under aerobic conditions in the presence of granular FeS as the main nutrient source. Waste water is introduced under aerobic conditions to into a vessel in which microorganisms and granular FeS are kept. In a modification, auxilliary nutrient source(s), e.g. thiosulphate, thiocyanate, granular S etc. are opt. used. Polythionic acids are $H_2S_3O_6$, $H_2S_4O_6$, $H_2S_5O_6$ and $H_2S_6O_6$ etc.

If NH_3 and amines are also contained in the waste water nitrification bacteria are used in combination with dithionic and polythionic acids-decomposing bacteria, so oxidn. of NH_3 and amine are carried-out simultaneously in the same vessel. 29.3.79 as 036235 (6pp34)

HITA ★ D15 83337 C/47 ★J5 5129-195
Expelling fungi in activated sludge treatment - by adding an inorganic salt in an amt. so that its osmotic pressure is increased
HITACHI KK 28.03.79-JA-035560
(06.10.80) C02f-03/12

In activated sludge treatment of organic effluent, fungi grown in activated sludge is effectively expelled without adversely affecting growth of BOD-oxidising bacteria by adding inorganic salt, e.g. NaCl and Na_2SO_4 etc. in such amt. that its osmotic pressure becomes greater than 5 atms., so that fungi is expelled and thereby settlability of activated sludge is recovered.

In an example, potatoe starch effluent having BOD conc. of 1800 ml/ℓ is subjected to activated sludge treatment under BOD vol. load of 6 kg/m^3.d, so that fungi contained in activated sludge is increased, and SV1 value of activated sludge is raised from 100 ml/g to 900 mg/g. Consequently activated sludge begins to outflow from settling vessel and NLSS concn. (in aeration vessel) is lowered from 4000-1000 mg/ℓ and thus activated sludge treatment becomes impossible. Then NaCl soln. is added continuously in such manner that the osmotic pressure of inner liquor of the aeration vessel becomes 5 atmos., so that fungi is expelled and SVI value of activated sludge is lowered from 900-150 ml/g. after 2 days. 28.3.79 as 035560 (3pp34)

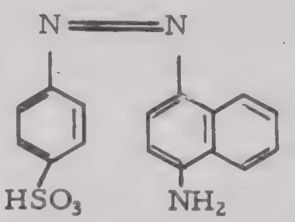
TOAE- ★ D15 83338 C/47 ★J5 5129-198
Lowering COD of high protein content waste water - using Saccharomyces Candida or trichosporon microorganism and activated sludge
TOHO AEN KK 29.03.79-JA-036304
(06.10.80) C02f-03/34 C12r-01/72

COD of waste water having high protein content, e.g. waste water from seafood plant or butchery etc., is effectively lowered (down to 5-30 ppm) by treating it with proteins-consuming bacteria belonging to Saccharomyces sp., Candida sp. or Trichosporon sp., and subsequently treating it with activated sludge.

The inoculation amt. of the bacteria is ~ 10^5-10^8 /ml., but may be varied by length of culturing time. The culturing temp. is pref. 20-40°C, but may be < 20°C if prolonged culturing is carried out. Culturing is carried-out under stirring and aeration, and NH_4Cl etc. is added as nutrient source for yeast if desired. The bacteria body existing largely in the waste water may be sepd. for use as fodder or sent directly to activated sludge-treating vessel without any sepn.; thereby the yeast serves as nutrient source for activated sludge. 29.3.79 as 036304 (4pp34)

MEID ★ D15 83454 C/47 ★J5 5129-754
Determining nitrous acid ion in waste water - by adding colouring substance, e.g. azo cpd. and fluorescent reducing cpd., sodium thiocyanate and subjecting to Raman spectroscopy
MEIDENSHA ELEC MFG KK 29.03.79-JA-036317
E36 (07.10.80) G01n-33/18

Method comprises introducing nitrous acid ion contained in waste water into colouring substance (e.g. azo compd. of formula (I) and adding fluorescence-reducing substance (e.g. Na thiocyanate) for decreasing the background of resonance Raman spectrum; and determining the concn. of the colouring substance, i.e. the concn. of nitrous acid ion, by resonance Raman spectrometric method, Pref. concn. of NO_2^- ($C_{NO_2^-}$) is determined at 1250 cm^{-1}; also $C_{NO_3^-}$ can be determined from $C_{NO_2^-}$ and the ratio of $C_{NO_3^-}$ (at 1045 cm^{-1})/$C_{NO_2^-}$ (at 1056 cm^{-1}).



(I)

Nitrous acid ion in water can be determined with higher sensitivity (0.5 ppb) than that by previous colorimetric method (about 5 ppb) and without being affected by coloured ions in waste water. 29.3.79 as 036317 (7pp50)

NITW D15 15493 Y/09 =J8 0041-319
Processing spent oxalate electrolyte from aluminium anodising bath - by sepg. out as calcium salt and decomposing with sulphuric acid
NITTETSU MINING KK (NITY) 08.07.75-JA-083136
*M11 (23.10.80) *J52007-339 C25d-21/18 + C01f-07/74*

Crude lime, slaked lime or calcium carbonate powder is added to the waste soln. depositing calcium oxalate and a complex salt of Al_2O_3 and CaO are sepd. This mixt. is decomposed with sulphuric acid. Oxalic acid and aluminium sulphate are produced as a soln. and calcium sulphate as crystals.

After sepg. the calcium sulphate the concn. of sulphuric acid is adjusted to 300-500 g/l and oxalic acid is crystallised out. Further sulphuric acid is added to the mother liquor which is then used for treating more spent electrolyte. 8.7.75 as 083136 C25d-21/18, C01f-7/74 (23.10.80) NITTETSU MINING LTD. (5pp) (J52007339)

CONN/ D15 39129 Y/22 =J8 0041-344
Oxidising and bleaching discoloured nonaqueous fluids - using cpds. generating chlorine ions and nitrogen radicals, to ppte. discolouring materials on an adsorbent
CONNELLY R F 22.10.75-JA-126445
*(23.10.80) *J52050-973 + C07b-03 D06l-01/10 D06l-03/06*

Process for oxidising and bleaching a nonaq.fluid contg. discolouring materials with active chlorine comprises adding a cpd. generating chlorine ion (e.g. HOCl) and another cpd. generating nitrogen radical (e.g. $CO(NH_2)_2$) to the nonac fluid. NCl_3 is produced by reaction of the added cpds. and the discolouring material is pptd. on an adsorbent medium ch as active carbon or active bauxite column.

Process provides a means of controlling environmental llution and is used for treating industrial effluents. 2.10.75 as 126445 D061-1/10, 3/06, C07b-3/00 (23.10.80) ONNELLY R.F. (3pp) (J52050973)

UAS ★ D15 83760 C/47 ★J8 0041-805

ilter mfr. for treatment of contaminated water - by dissolving hermoplastic resin in solvent-non solvent mixt., forming icroporous film and applying active charcoal

YUASA BATTERY CO KK 00.00.78-JA-074760 (27.05.70-JA-045834)

A88 J01 (27.10.80) B01d-39/14 B01d-53/02 B01j-20/28

Method comprises dissolving thermplastic resin (I) in a mixt. of solvent (II) and non-solvent (III), casting the soln. on a flat plate to give microporous film (IV), applying active charcoal powder (V) or (IV), and stripping (IV) from the plate. (I) is polystyrene, PVC, acrylic resins, EVA etc. Typical casting solns.are: 5 pts.wt.PVC 60 pts. wt. THF and 35 pts.wt. isopropanol, 14 pts.wt. polystyrene 50 pts.wt. THF and 30 pts.wt. isopropanol, etc. (V) is applied e.g. by spraying, rubbing, etc. to form a thin coating layer on (IV) or to fill the micropores in (IV), Opt.layer of (V) is sandwiched with two sheets of (IV) differing in pore size.

Used for clarifying contaminated water. Filter removes ions such as Cl$^-$, and can be re-used by simple washing with water. 27.5.70 as 074760/78 Div.ex. 045834/70 B01d 39/14, 53/02, B01j-20/28 (27.10.80) YUASA BATTERY CO KK (3pp83)

YUAS ★ D15 83761 C/47 ★J8 0041-806

Mfr. of filter used for clarifying contaminated water - by dissolving thermoplastic resin in mixt. of solvent and non-solvent, spreading soln. on film, applying charcoal powder etc.

YUASA BATTERY CO KK 00.00.78-JA-074761 (27.05.70-JA-045834)

A88 J01 (27.10.80) B01d-39/14 B01d-53/02 B01j-20/28

The method comprises dissolving thermoplastic resin (I) in a mixt. of solvent (II) and non-solvent (III), spreading the soln. in thin film (IV) on a flat plate, applying active charcoal powder (V) on (IV), drying (IV) and stripping (IV) from the plate.

Used for clarifying contaminated water. The filter has fine through holes, has ability to adsorb ions such as Cl$^-$, and can be used repeatedly by simple washing with water. (I) is e.g. polystyrene, PVC, acrylic resins, polyvinylidene fluoride, ethylene-vinylacetate, copolymer etc. Typical formulation of the casting soln. is 5 pbw PVC, 60 pbw THF and 35 pbw i-propanol. 27.5.70 as 74761/78, Div.ex. 45834/70 B01d-39/14, 53/02, B01j-20/28 (27.10.80) YUASA BATTERY CO. KK (3pp83)

BIOS- D15 78320 U/51 #J8 0041-829

Sewage phosphates extraction - using activated sludge

BIOSPHERICS INC (BIO -) 02.06.72-NL-007517 (02.06.72-JA-054995)

*(27.10.80) *NL7207-517 +C02f-03 C02f-11*

Raw sewage is passed through a presedimentation tank and then mixed with activated sludge, the resultant slurry being stored in an aeration tank for 1-8 hrs. where the micro-organisms in the activated sludge digest the phosphates, some being absorbed into the dluge and insol.particles being pptd. The slurry then passed to a sedimentation tank whence the sludge with digested and pptd.phosphates is fed to a stripping tank into which a stoichiometric quantity of phosphate stripping and dissolving agents is fed so that the sludge can be recycled. The effluent from the final separator can be passed for subsequent treatment and has significantly reduced BOD. 2.6.72 as 054995, C02f 3/00, 11/00 (27.10.80) BIOSPHERICS INC. (4pp) J49023449)

KURK ★ D15 83763 C/47 ★J8 0041-832

Organic waste water treatment - by two/stage treatment with activated sludge

KURITA WATER IND KK 24.08.78-JA-102339

(27.10.80) C02f-03/12

Method comprises (i) treating organic waste water with activated sludge of logarithmic phase and (ii) treating the water with ordinary activated sludge while adding the raw waste water to step (ii). The method forms readily settling flocs and gives high quality treated water. 24.8.78 as 102339, C02f-3/12 (27.10.80) KURITA WATER IND.KK (3pp83) (J55028759)

KURK D15 38904 C/22 =J8 0041-833

Treatment of polluted water in activated sludge treating appts. - with addn. of e.g. polyethyleneimine to aeration vessel to prevent outflow of suspended solids in treated water

KURITA WATER IND KK 11.10.78-JA-124773

*A91 (A26) (27.10.80) *J55051-494 C02f-03/12 +C02f-01/56*

In the treatment of polluted water, e.g. domestic effluent etc. by means of activated sludge treating apparatus provided with aeration vessel and sedimentation vessel but not provided with crude water-adjusting vessel, the improvement comprises adding polyethyleneimine or condensed polymer of alkylenedihalide and alkylenepolyamine in the aeration vessel or in path between the aeration vessel and the sedimentation vessel, so that outflow of suspended solids in treated water, due to rapid increase in amt. of the crude water to be flowed in the aeration vessel, is effectively prevented.

The amt. of polyethylenediamine or the condensed polymer of alkylenehalide and alkylenepolyamine, to be added, is ~5-50 ppm in the case of treating the domestic effluent and this additive is capable of forming flocs having excellent settlability due to its high cationic property and pref. M.W.(30000-600000). The flocs are settled rapidly at the final sedimentation pond and outflow of the suspended solids in the treated water is effectively prevented. 11.10.80 as 124773, C02f-3/12, 1/56 (27.10.80) KURITA WATER IND. KK (3pp)(J55051494)

CARS- D15 57627 V/32 =J8 0041-840

Water-soluble chem. waste sludge treatment - using aluminium and sulphuric acid derivs to convert it into solid

CARSON G & W H INC 08.09.72-JA-090257

*(27.10.80) *J49059-077 +C02f-11 C04b-29*

The method involves adding lime, aluminium cpd. and water-soluble sulphate to water-soluble chemical waste sludge, so that the resulting mixture has effective sulphuric acid ion, selected from effective sulphuric acid ion, aluminium ion and effective secondary ion, and effective tertiary ion. This ensures that the sludge is converted into a solid material. 8.9.72 as 090257 C02f-11/00, C04b-29/00 (27.10.80) G & W H CARSON INC.(10pp) (J49059077)

DIAS D15 16985 S/09 =J8 0042-042

Compsn for purifying water residues

DIAMOND SHAMROCK CORP 28.08.69-US-853968

*E33 (D22) (28.10.80) *BE-755-391*

TEPR- ★ D15 C/47 ★NO 7900-050

Liq. sewage treating plant

TE-PRO A/S 08.01.79-NO-000050

(27.10.80) C02f

GERZ/ ★ D15 83804 C/47 ★SU -726-026

Natural water acidification process control - uses relative flow-rate into mixer and along by/pass related to natural water pH value to eliminate effect of alkalinity variation

GERZON V M 28.12.77-SU-560849

(05.04.80) C02b-01/18 G05d-27

Known method for acidification of natural water by process control in energy prodn and public utilities varies the relative flowrate of water and acid soln into a mixer according to the pH-value of the acidified water and its electro-conductance and electro-conductance of the natural water. For greater accuracy in holding the pH-value of the acidified water after the mixer, the relative flowrate into the mixer and through a by-pass is related to the natural water pH. The effect of initial water alkalinity variation is eliminated.

Gerzon, V. M., Chernov, A. G., Samozhenkov, L. S., Bul.13/5.4.80.28.12.77.as560849(3pp840).

LENI ★ D15 83884 C/47 ★SU -727-207
Oxidising yeast hydrolysis waste in aq. effluent - using catalyst contg. oxide(s) of manganese, copper and cobalt on alumina
LENINGRAD LENSOVET TECH 18.07.78-SU-646618
(D16) (15.04.80) B01j-21/04 B01j-23/16

More active catalyst results by using these components in the following proportions(in wt. %): MnO_2 4.0-12.0, CuO 2.0-6.0, Co_3O_4 6.0-12.0, Y-Al_2O_3 remainder. Pref. catalyst contains(in wt. %) MnO_2 4, Co_3O_4 12, CuO 2, Al_2O_3 82.

It is made by soaking Y-Al_2O_3 granules in solns. of the metal nitrates. The granules are dried at 110°C for 4 hrs and ignited at 400°C for 20 hrs at a low temp gradient.
Yablokova, M. A. , Reshanov, A.S. , Sokolov, V. N. , et al
Bul.14/15.4.80.18.7.78.as646618(2pp835).

SUTP/ ★ D15 84168 C/47 ★US 4231-863
Aerobic treatment of waste water - by forced flow of aerated waste up conduits supporting biotin growth on walls
SUTPHIN E M 26.04.79-US-033350
(04.11.80) C02c-01/08

Water contg. contaminants is treated using a tank housing an array of vertical, open-ended conduits adapted to support biota growth on their surfaces. They are positioned in close-packed relationship with openings between adjacent conduits. There is a gas supply adjacent the bottom of each conduit. Water level is maintained which at least partially immerses the conduits. Gas expelled into the conduits aerates and lifts the water to the top thus producing an upward flow within the conduits and a downward flow between the conduits.

Appts. is used to treat waste water such as sewage. Pref. the gas used is air or O_2 and the water is thus treated aerobically. Opt. particles may be added to the water to increase the surface area carrying the desirable biota.
26.4.79 as 033350 (9pp295)

MART/ D15 54961 B/30 =US 4231-864
Prepn. of water for haemodialysis for e.g. renal haemodialysis - by fixing acetate ions on exchange resin for water insol. ions and passing water over resin
MARTY D (ABAD/) 21.10.77-FR-032009
*A91 J01 P34 (04.11.80) *FR2406-608 +B01d-15/04*

Water used for haemodialysis is prepd. by passing potable water through anion-exchange resin on which acetate anions CH_3COO- have been fixed. The water contains undesirable anions and during the process these are substd. for the acetate ions. Pref. the potable water has a hydrotimetric level ≏ 0.5°TH and contains organic materials and impurities in suspension, and is pref. subjected to water softening before passing through the resin. Pref. the resin comprises in part a macroporous resin with positive quat. ammonium sites and has a granular form in a compact filtering bed. Pref. the resin used is of formula $[RCH_2N(CH_3)_3]$ or $[RCH_2N(CH_3)_2(CH_2)_2OH]$ and $[CH_3COO]$- where R is an organic polymer gp.

The water resulting from the exchange process is non-corrosive and has a salinity arising from tolerated ions. The base prods. are easily regenerated and regeneration is effected at any site, i.e. at home or in hospital.
25.9.78 as 945296 (7pp918)

USSI ★ D15 84169 C/47 ★US 4231-865
Reverse osmosis process with membrane backwashing - improved by application of electrical potential across membrane
US SEC OF INTERIOR 07.08.79-US-064466 (12.10.78-US-950761)
(04.11.80) B01d-13 C02b-01/82

Reverse osmosis process is used for the purificn. of saline water. This comprises applying to the saline water a pressure in excess of its osmotic pressure. Saline water is sepd. from purified water by a reverse osmosis membrane through which the pure water permeates while retaining salt molecules. Membrane is backwashed by application of an electrical potential across it to cause an electroosmotic backflow of water through the membrane.

Backwashing process is efficient and does not cause damage to the membrane. 7.8.79 as 064466 (4pp295)

AKER- D15 63493 B/35 =US 4231-870
Water filter for removing microorganisms, e.g. marine algae - has means for feeding conc. sulphuric acid to the filter unit to remove collected microorganisms
AKERS MEK VERKSTED 06.03.78-NO-000770 (20.02.78-NO-000583)
*H01 J01 +Q49 (04.11.80) *GB2014-467 B01d-23/24*

Water filter is cleaned and regenerated by contacting the filter from the upstream side with a 65% soln. of H_2SO_4, and washing the filter with purified H_2O to remove the residue of dehydrated microorganisms. Prior to acid treatment water to be filtered is drained from both sides of the filter.

Pref. the filter is a porous solid. Regeneration can be accomplished cheaply without stressing the filter. 16.2.79 as 012738 (5pp1376)

KEIL/ D15 33443 B/18 =US 4231-87
Water softening appliance - with plastics throwaway cartridge for ion exchanger resin sealed in sheet metal tank
KEIL W 25.11.77-DT-752581
*A91 J01 (04.11.80) *DS2752-581 +B01d-27 B01d-35/02 B01j-47/04*

Desalinating appts. consists of a disposable cylindrical cartridge contg. a bed of cationic and anionic exchange resins disposed in a cylindrical pressure-resistant vessel. The cartridge walls are permeable and non-resistant to pressure. All water entering the vessel passes through the cartridge, and the pressure is transferred through the cartridge walls to the vessel walls without damaging the cartridge.

Pref. the vessel is of thin, corrosion resistant, high strength steel, and the cartridge walls are of thin polyethylene.

Cartridge is simply sealed and replaced in a vessel.
27.11.78 as 964073 (5pp1376)

SWIG/ ★ D15 84174 C/47 ★US 4231-873
Underwater liq. containment system - has tops of flexible elongate upright containers held by floats with headers and piping
SWIGGER M P 06.09.77-US-830581
Q24 Q42 (04.11.80) B63b-35 E02b-01

A system includes ≥ 2 elongate flexible impermeable closed containers held adjacent and upright and entirely immersed in water. The top of each container has an access opening and is supported by a floating structure holding a header assembly and piping for delivery and discharge of liq.

There are pref. controls for adding liq. treatment chemicals to the containers, and the bottom of each container can be drawn up to the top for removal of deposits. The system is e.g. for storage of overflow or excess fresh water from inland reservoirs offshore, for use as a waste water treatment system, or for use in fish or plant cultivation. 6.9.77 as 830581 (5pp1358)

HEIL/ ★ D15 84175 C/47 ★US 4231-874
Waste treatment using aerobic decomposition - using concentric tanks with rotating flow in outer annulus
HEILIGTAG R W 14.12.76-US-750395
(04.11.80) B01f-03/04 C02f-03/22

A water treatment tank comprises concentric cylindrical shells having a common closed bottom wall. The inner shell includes an opening providing communication between the outer annular zone and the inner cylindrical one, adjacent the bottom wall. Sewage is admitted to the annular zone and there is an inlet from that zone to the cylindrical one below the level of liquid in the tank. Clarified liq. is removed from the inner zone. A horizontal circulating flow pattern is generated in the annular zone. This produced by a pump which also includes a venturi for drawing air into the system.

The appts. is used for the aerobic treatment of waste.
14.12.76 as 750395 (6pp295)

ETZ ★ D15 84184 C/47 ★US 4231-894
abilisation of alkali metal (bi)sulphite-cobalt solns. - by addn. of ydroxy-alkylidene-di:phosphonic acid derivs.
BETZ LABS INC 17.01.80-US-112981 (20.09.76-US-724442)
E11 (04.11.80) C23f-11/18

q. solns. of an alkali metal (bi)sulphite (I) contg. an H_2O-oluble Co catalyst which ppte. Co sulphite when the pH is ncreased, are stabilised during storage by addn. of a di phosphonic acid of formula $RC(OH)(PO_3M_2)_2$ (II) (where is 1-3C alkyl; M is H, Na, K or NH_4).

(II) effectively stabilise Co catalysed (I) solns. against he known decompsn. and sludge formation that occurs on ulk storage. The (I) solns. are useful in inhibiting or controlling O_2 corrosion in H_2O treatments (esp. boiler H_2O reatment. 17.1.80 as 112981 (+20.6.77, 31.7.78 - US - 07949, 92915.7)(5pp478)

GESJ D15 64607 C/37 =US 4231-974
Apparatus for aerating liquid esp. effluent or sewage - with air-coil shaped hollow blades for introducing gas to liquid passing down draft tube (J5 5.8.80
GENERAL SIGNAL CORP 29.01.79-US-007132
*+P41 (04.11.80) *EP--15-050 C02f-03/20 +B01f-13/02 B03d-01/18 C02f-01/74*

Appts. for mixing 2 fluids consists of a hollow shaft and impeller through which one of the fluids is passed into the other. The impeller blade is airfoil shaped and has a camber of max. length 2 to 6% of the length of the chord between the leading and trailing edges. The max. thickness of the blade is 10 to 18% of the chord length. The outlet of the hollow shaft opens out in the suction surface of the blade.

Aeration efficiency is improved without decreasing the power efficiency. 29.1.79 as 007132 (8pp1376)

DOWC ★ D15 84285 C/47 ★US 4232-125
Di:acylamino-alkylation of a mono:vinylidene aromatic polymer - by reacting with aldehyde, imide and strong acid catalyst
DOW CHEMICAL CO 22.02.79-US-013956
A13 J01 (A91) (04.11.80) C08c-19/22 C08f-08/30

(A) A crosslinked polymer (I) of a monovinylidene aromatic cpd. (II) is diacylaminoalkylated by reacting with an aldehyde and either phthalimide or maleimide in the presence of a strong acid catalyst. (B) Weak base resin of an aminoalkylated crosslinked aromatic polymer bearing a pendant primary amino gp. is prepd. by hydrolysing the prod. of (A). (C) An anion exchange resin bearing sec- or tert-amino gps. or quat. ammonium gps. is prepd. by alkylating the prod. of (B). (D) A chelate resin is prepd. from the prod. of (B) by attaching carboxyl contg. gps. to the N atom.

Diacylaminoalkylated polymers are easily converted to ion exchange resins having excellent capacity. Ion exchange resins are useful for removing electrolytes from water and other liqs., for desalting, demineralising and for other purificn. processes. 22.2.79 as 013956 (6pp928)

See Also

D16 GB 1579344

D16: FERMENTATION INDUSTRY

MINU ★ D16 82635 C/47 ★BE -883-099
Fractional pptn. of protein(s) - with addn. of precipitant through dialysis membrane
MINNESOTA UNIVERSITY 04.05.79-US-036031
B04 J01 (03.11.80) A23j B01d

Protein fractionation is carried out by (a) circulating a cold protein soln. through an enclosed space on one side of a porous membrane, (b) adjusting the temp. by circulating a soln. of a liq. protein precipitant in contact with the other side of the membrane, (c) increasing the flow rate and pressure of the precipitant soln. so that the precipitant passes through the membrane and mixes with the protein soln., and (d) separating the pptd. proteins. This procedure can be repeated several times with successive supernatant solns. to achieve the desired degree of fractionation.

The process is esp. useful for Cohn fractionation of plasma proteins with ethanol. It allows precise control of ethanol addn., temp., pH and ionic strength, and gives high-purity protein fractions in finely divided form in a shorter time than conventional Cohn fractionation. Shear-induced denaturation and pyrogen contamination can be avoided. 2.5.80 as 883099 (30pp367).

BIOD- ★ D16 82669 C/47 ★BE -884-323
Simultaneous determn. of two transaminase enzymes - by kinetic photometric method using specific substrates
BIODATA SPA 17.07.79-IT-049789
B04 S03 (03.11.80) C12q G01n

Simultaneous determn. of glutamate-oxalacetate transaminase (GOT) and glutamate-pyruvate transaminase (GPT) in a single serum or plasma sample is carried out by a kinetic UV method using L-cysteine-sulphinic acid (I) and L-alanine (II) as specific substrates for GOT and GPT respectively, and using lactate dehydrogenase (LDH) as indicator enzyme.

The method can be used for diagnosis, e.g. of myocardial infarction or hepatic disorders. 15.7.80 as 884323 (11pp367).

CTPT- ★ D16 C/47 ★BR 7901-407
Prodn. of alcohol from manioc - with improved yield by recycling
CTP CENT TECN PROMO 08.03.79-BR-001407
(07.10.80) C12c-11/08

IPTP- ★ D16 C/47 ★BR 7901-546
Continuous process for alcoholic fermentation
IPT INST PESQU TECN 12.03.79-BR-001546
(07.10.80) C12c-11/14

FABI/ ★ D16 C/47 ★CS 7905-600
Baking yeast milk processing
FABIAN J 16.08.79-CS-005600
(31.07.80) C12b-01/24

KLJA/ ★ D16 C/47 ★CS 7905-602
Nutrient for L-lysine producing strain
KLJAVINJA S 16.08.79-CS-005602
(31.07.80) C12p-13/08

SALV/ ★ D16 C/47 ★CS 7907-007
Gelled materials perforator
SALVET M 16.10.79-CS-007007
(31.07.80) C12m-01/28

THOM/ D16 73768 B/41 =DS 2813-867
Hops feed for brewing copper - with program controlled descending and ascending endless conveyor
THOMASCHKI C 31.03.78-DT-813867
*(13.11.80) *DT2813-867 +C12c-09/02*

A loop of an endless conveyor for delivering hops into a brewing vat has a descending and an ascending section. The belt has, spaced out on its surface, containers or holders for containers of hop extract or hop pellets.

A control circuit for the conveyor motor stops the motion at predetermined points for predetermined periods of time, so that the process is automated and a controlled dissolving and dispersion of the hops is guaranteed. 31.3.78 as 813867 (11pp1045).

WEIS- ★ D16 82715 C/47 ★DT 2917-459

White peat processing for combustion - by adding microorganism culture and rotting before briquetting

GEBR WEISS KG 30.04.79-DT-917459

H09 (13.11.80) C10f-07/06

A processing plant for peat to be fired for the generation of energy is based on inoculation of the dug peat, specially white peat, with a substrate, interspersed with microorganisms, actinomycetes and fungi. The substrate can consist of compost, with an admixture of urea. The rotting process lasts seven days and the material is then ready to be pressed to briquettes.

This is an economical way of utilizing even the white peat on the surface of the peat bogs for combustion purposes. All grades of peat can thus be converted to a fuel which can be stored and transported without detriment.

30.4.79 as 917459 (11pp39).

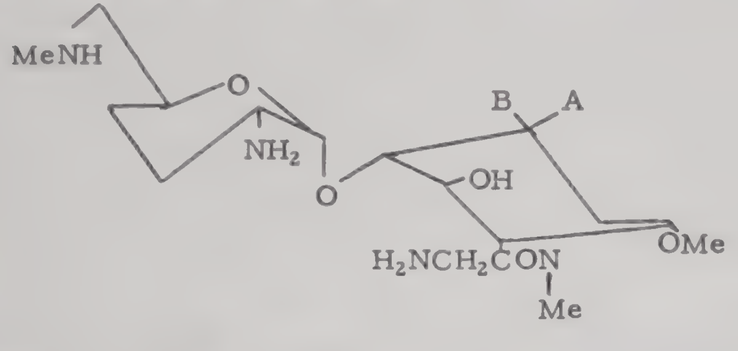
ZAID ★ D16 82842 C/47 ★DT 3012-014

Istamycin A,B,AO and BO are antibiotics - prepd. by fermentation of Streptomyces tenjimariensis SS-939 ferm-P 4932 ATCC 31603 (NL 4.11.80)

ZH BISEIBUTSU KAGAKU KEN 17.09.79-JA-117912 (01.05.79-JA-052517)

B03 +P34 (13.11.80) A01n-43/16 A01n-63/02 A61k-31/71 C07h-15/22 C12n-01/20 C12p-19/48

Istamycin derivs. of formula (I) are new, where in Istamycin A, A is NH_2 and B is H and Istamycin B, B is NH_2 and A is H.



Istamycin Ao and B_O are also new. Istamycin Ao is as Istamycin A, but the H_2NCH_2CO- gp. is replaced by H. Similarly in Istamycin B_O, the H_2NCH_2CO-gp. in Istamycin B is replaced by H.

Streptomyces tenjimariensis SS-939 FERM-P4932 ATCC No. 31603 is a novel species.

Istamycin A and B are strong antibacterials effective against and inhibit a large number of Gram negative and positive bacteria, such as Staphylococcus Laureus 209P and E. Coli NIHJ. 28.3.80 as 012014 (54pp1401).

ORIO- ★ D16 82874 C/47 ★DT 3016-391

Enzyme immunity determn. e.g. in testosterone deter. - by placing test soln. and enzyme antigen or antibody in antiserum-or antigen-coated test tube and measuring effect on substrate soln.

ORION-YHTYMA OY 30.04.79-SF-001397

B04 J04 S03 (13.11.80) G01n-33/48

New procedure is claimed for the investigation of enzyme immunity by placing a specimen under investigation or a standard solution together with an enzyme-antigen or enzyme-antibody complex intended for comparison in a test tube of which at least the inner surface is coated with an antiserum or an antigen, allowing the soln. to react with the coating, allowing the coating and the attached cpds. to react with a substrate soln. for the comparison system, and quantitatively measuring the cpd. formed by the reaction. After completion of the reaction of the specimen or standard soln. with the coating of the test tube, the soln. is removed from the test tube and the tube, with its opening pointing downwards, is tightly and firmly attached to a second tube contg. the substrate soln. The substrate soln. is allowed to react with the coating of the first test tube. After completion of the reaction, the tubes (still attached) are rotated so that the soln. flows into the second tube, then the first test tube is removed and the quantitative measurement is carried out by fluorometry, an enzyme utilising pyridine nucleotide as coenzyme being used as the comparison system.

Used immunoenzymatic determinations of substances such as testosterone. Procedure is more sensitive, mo accurate and more practical than known procedures. Hi -ly accurate measurements are easy to carry out on both a micro and a macro scale. 29.4.80 as 016391 (12pp280

ELWI/ D16 11892 B/06 =EP --18-3

Determn. of biological substances in test materials - by diffusion in porous matrix or by electrophoresis

ELWING H B 14.07.77-SW-008179

*B04 J04 S03 (S05) (12.11.80) *WP7900-044 G01n-33/48*

D/S: E(FR)

13.7.78 as 900049

ELWI/ D16 11892 B/06 =EP --18-35

Determn. of biological substances in test materials - by diffusion in porous matrix or by electrophoresis

ELWING H B 14.07.77-SW-008179

*B04 J04 S03 (S05) (12.11.80) *WP7900-044 +C12n-01 C12n-1 C12q-01*

D/S: E(FR)

13.7.78 as 900050

TEIJ ★ D16 82955 C/47 ★EP --18-52

Aromatic polyamide core in sheath fibre - with core insoluble an sheath soluble in N methyl-2-pyrrolidone and having excellent hea resistance and flame retardance

TEIJIN KK 24.04.79-JA-049779

A23 B04 F01 (A94 A96) (12.11.80) D01f-06/60

D/S: E(DT, FR, GB, IT, NL)

A core in sheath fibre comprises a longitudinally extending core and sheath both of the same aromatic polyamide, the core being insoluble and the sheath soluble in N-methyl-2-pyrrolidone at 35 °C. Pref. the polyamide contains repeat units of formula

$[NR_1-Ar_1-CO]$ and/or $[NR_2-Ar_2-NR_3COAr_3CO]$

(Ar_1-Ar_3 are opt. substd. divalent aryl comprising a single aromatic ring or $\geqslant$ 2 rings condensed together or linked by a single bond or bridging atom or gp. and which are oriented meta or para; and R_1-R_3 are H or 1-3C alkyl).

Prodn. of the fibre is also claimed.

The fibre exhibits excellent heat resistance,dyeing props. and flame retardance. On dyeing, the sheath may be coloured whereas the core remains non-coloured. The fibre may adsorb water, various org. cpds. or fix various inorganic cpds. or enzymes.

11.4.80. as 101947 (28pp966).

(E) ISR: FR2185038; US3760054; FR2268820; DT1817952; FR2125346.

UNII ★ D16 82971 C/47 ★EP --18-579

Water-soluble antigen specific for Babesia parasites - useful ir vaccine for protection against Babesia parasites and in diagnosis

UNIV OF ILLINOIS 31.03.80-US-130481 (30.04.79-US-034664)

B04 C03 S03 (X25) (12.11.80) A61k-39/ C12k C12n-01/1 G01n-33/54*

D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE).

A novel water-soluble antigen specific for Babesia parasites is characterised by the ability to inhibit the capacity of specific Babesia serum antibodies to neutralise the infectivity of Babesia merozoites in vitro.

The antigen in conjunction with a diluent, adjuvant or carrier forms a vaccine for use in conferring protection to a human or animal against infection by a Babesia parasite; it is also useful in a diagnostic reagent for the detection of a babesiosis disease state.

23.4.80 as 102167 (18pp1248)

(E) ISR:———

UNII ★ D16 82972 C/47 ★EP --18-580

propagation of Babesia and haemotropic parasites - useful for large scale quantitative prodn. of specific antigens

UNIV OF ILLINOIS 31.03.80-US-130482 (30.04.79-US-034663)
B04 C03 S03 (12.11.80) A61k-39/ C12k C12n-01/10 C12q-01/18 G01n-33/54*
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE).

(A) Propagation of Babesia parasites is effected by incubation of erythrocyte host cells in a culture medium contg. 25-55% defibrinated serum. Cultivation is in presence of a controlled atmosphere contg. 3-7% CO_2 and with reduced oxygen tension on the infected erythrocytes so that erythrocytic haemoglobin is maintained in its deoxy state.

(B) Propagation of haemotropic parasites is effected similarly but the incubation must be carried out statically and the controlled atmosphere contains 3-6% CO_2.

Extracellular Babesia antigen is isolated from the culture medium, which may be produced on the large scale. The antigen is useful, as described in EP--18579, for prepn. of an anti-Babesia vaccine and for use in a diagnostic reagent for the detection of a babesiosis disease state. Other parasites which can be propagated include Plasmodium strains and rickettsial parasites such as Anaplasma marginale.

23.4.80 as 102168 (19pp1248)
(E) ISR:———

BEHW ★ D16 82993 C/47 ★EP --18-628

Dry substrate for gamma glutamyl transpeptidase determn. - contains gamma glutamyl nitranilide, acid and opt. solvent stabiliser, e.g. quat. polymer cation

BEHRINGWERKE AG 04.05.79-DT-917999
A96 B04 (12.11.80) C12q-01/48 G01n-33/48
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

Dry compsn. of γ-glutamyl-nitranilide (I) for use as substrate in determination of γ-glutamyl transpeptidase (II) contains an acid in at least molar equivalence to (I) and opt. also a solvent stabiliser (III).

Pref. (III) is a quat. polycation based on polyvinylpyrrolidone; an ethoxylated phenol or alkylphenol; or a tetrafluoroethylene polymer having branched perfluoro gps. Esp. (III) is present at 0.1-100 mg/ml in the test soln.

Compsn. are used to determine (II), esp. in blood serum, for diagnosis of liver disease. The presence of the acid gives a compsn. which dissolves almost instantaneously at 20-25°C. (III) improves the colour stability of the reconstituted reagent.

30.4.80 as 102321 (12pp1251)
(G) ISR: PO--84464; FR2106163; FR2071603; J51118732; DS2259512; DT2333798; 2 Journal References.

SYNT ★ D16 83031 C/47 ★EP --18-731

Macromolecular cpds. useful as glycosidase substrates - have glycosidyl ether substd. phenolic chromogen bonded to e.g. polysaccharide hub

SYNTEX (USA) CO 10.04.79-US-028777
A96 B04 (12.11.80) C12q-01/34
D/S: E(DT, FR, GB, IT).

Macromolecular cpds. comprising a macrolecular hub having enzyme labile glycosidyl ether substd. phenolic chromogens bonded to it are new.

Pref. cpds. are of formula (I)

$$M\left\{\begin{array}{l}(XAZ)_m\\(XAZ'RChOG)_n\end{array}\right. \qquad (I)$$

(M is a macromolecular support of mol. wt. $\geqslant$ 10000;
X is a functionality bonded to the backbone of the support e.g. oxy, amino or non-oxocarbonyl;
A is alkylene or alkylene carbonyl; or A + Z is H or A + Z' is a bond;
Z is amino, carboxy, hydroxy, Z'RH or, when A is alkylenecarbonyl, halo bonded to alkylene;
Z' is amino or non-oxo-carbonyl;
R is a bond or a linking gp., pref. having 1-20C and 0-10 N, O or S;
ChO is a divalent chromogen having (i) a phenolic oxy gp. and (ii) a chromophore which either (a) absorbs light above 300 nm, or (b) fluoresces, emitting light above 350 nm; and undergoes a substantial difference in its spectroscopic props. between the substd. and unsubstd. phenolic oxy gp.;
G is a glycoside;
n = 1 to (mol. wt. of M)/150;
m = 0 to 10 n).

The cpds. are useful as glycosidase substrates (esp. for glycosidases of 6C sugars) in diagnostic assays having enzyme labels where the signal is modulated by steric exclusion of a substrate to the enzyme active site.

8.4.80. as 301104 (33pp985).
(E) ISR: US4025392; 2 Journal References.

ORTH ★ D16 83054 C/47 ★EP --18-794

Mono:clonal antibody to human helper T cells - useful for detection and treatment of helper T cell defect or excess conditions

ORTHO PHARM CORP 26.04.79-US-033639
B04 S03 (S05) (12.11.80) A61k-39/39 C12n-05 C12n-15 C12p-01 C12r-01/91 G01n-33/54
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

(A) A novel monoclonal antibody of class IgG is produced by a hybridoma formed by fusion of spleen cells from a mouse previously immunised with human T cells and cells from a mouse myeloma line. The antibody (a) reacts with all normal human peripheral helper T cells (about 55% of all normal human peripheral T cells), but not with normal human peripheral B cells, null cells or macrophages; (b) reacts with 80% normal human thymocytes; (c) does not react with leukaemic cells from humans with T cell or B cell chronic lymphoblastic leukaemia or T cell or null cell acute lymphoblastic leukaemia; (d) reacts with the human T cell line CEM, but not with HJD-1, Laz 191 or HM1; (e) does not react with Epstein-Barr virus-transformed human B cell lines Laz 007, Laz 156, Laz 256 or SB; (f) reacts with 55% of Rhesus monkey peripheral T cells; (g) fixes complement; and (h) defines a T cell population (OKT 4) which is unreactive with anti-TH_2 serum and is only minimally cytotoxic.

(B) The hybridoma which produces an antibody as defined above is new.

(C) Hybridoma OKT-4 (ATCC CRL 8002) is new, as is the monoclonal antibody obtd. with it.

The antibody is useful for detection of helper T cell defect or excess, esp. a deficiency of type II acquired agammaglobulinaemia, and for treating helper T cell cancer, esp. cutaneous T cell lymphoma or T cell acute lymphoblastic leukaemia; it is also useful for treatment of autoimmune diseases caused by an excess of helper

25.4.80 as 301356 (41pp1248)
(E) ISR:-

ORTH ★ D16 83055 C/47 ★EP --18-795

Mono:clonal antibody produced by hybrid cell line - for preventing organ transplant rejection and treating T cell lymphoma

ORTHO PHARM CORP 26.04.79-US-033669
B04 S03 (S05) (12.11.80) A61k-39/39 C12n-05 C12n-15 C12p-01 C12r-01/91 G01n-33/54
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

(A) A novel monoclonal antibody of class IgG is produced by a hybridoma formed by fusion of spleen cells from a mouse previously immunised with human T cells and cells from a mouse myeloma line. The antibody (a) reacts with all normal human peripheral T cells and cutaneous T lymphoma cells, but not with normal human peripheral B cells, null cells or macrophages; (b) reacts with 5-10% of normal human thymocytes; (c) reacts with leukaemic cells from humans with T cell chronic lymphoblastic leukaemia but does not react with leukaemic cells from humans with T cell or null cell acute lymphoblastic leukaemia or B cell chronic lymphatic leukaemia; (d) reacts weakly with the human T cell line HJD-1 but does not react with CEM, Laz 191 or HMI; (e) does not react with the Epstein-Barr virus-transformed human B cell lines Laz 007, Laz 156, Laz

256 or SB; and (f) fixes complement.

(B) The hybridoma which produces an antibody as defined above is new.

(C) Hybridoma OKT-3 (ATCC CRL 8001) is new, as is the monoclonal antibody obtd. with it.

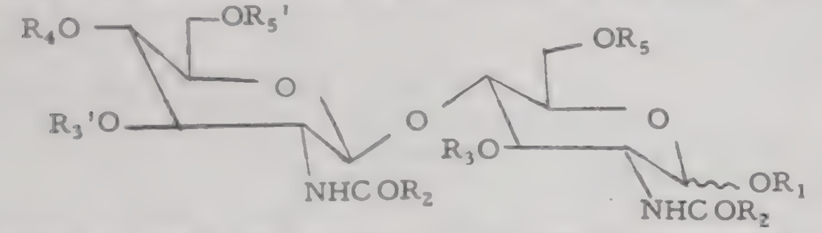
The antibody reduces or eliminates the allograft rejection of organ transplants in a subject. It is also useful for determn. of the proportion of T cells in circulating lymphocytes (since T cells react with it) and for treatment of cutaneous T cell lymphoma. The hybridomas are useful in the prodn. of the antibodies.
25.4.80 as 301357 (33pp1248)
(E) ISR:-

NATC ★ D16 83066 C/47 ★EP--18-825
Rapid identification of bacteria - by determination of bacterial enzymes, pref. by continuous flow analysis
NCR CORP 02.05.79-GB-015318
B04 (12.11.80) C12q-01/04
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL).

Identification of bacterial compsns. comprises subjecting the bacteria to a combination of tests for the determination of bacterial enzymes. The enzymes are lipase, α- or β-glucosidase, β-xylosidase, β-glucuronidase, β-galactosidase, whole cell phosphatase, acid phosphatase (in the presence of agents which disrupt the bacterial cell permeability barrier), DL-alanyl-β-naphthylamine specific peptidase, L-arginyl-β-naphthylamine specific peptidase, N-γ-L-glutamyl-β-naphthylamine specific peptidase, glycyl-β-naphthylamine specific peptidase, L-4-hydroxyprolyl-β-naphthylamine specific peptidase, L-leucyl-β-naphthylamine peptidase, L-leucyl-4-methoxy-β-naphthylamine specific peptidase, L-lysyl-β-naphthylamine specific peptidase, L-prolyl-β-naphthylamine specific peptidase, L-pyrrolidonyl-β-naphthylamine peptidase, alanyl-p-nitroalanine specific peptidase, glutamyl-p-nitro alanine specific peptidase, diacetyl/acetoin producing enzymes, p-nitrophenylalanine ammonia lyase, tryptophanase, deoxyribonuclease, glutamate decarboxylase and cytochrome oxidase.
30.4.80. as 301419 (40pp985).
(E) ISR: US4024530; FR2356723; GB2005410; 14 Journal References.

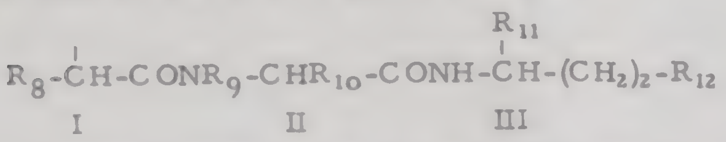
MERI ★ D16 83096 C/47 ★EP--18-901
2-Amino-2-deoxy-beta-D-gluco pyranosyl-(1-4)-2 amino-2-deoxy-D-glucose - immunostimulant esp. for use with vaccines
MERCK & CO INC 27.04.79-US-033597
B03 C02 (12.11.80) A61k-31/70 C07h-13 C07h-15
D/S: E(BE, CH, DT, FL, FR, GB, IT, LU, NL, OE, SW).

2-Amino-2-deoxy-β-D-glucopyranosyl-(1-4)-2-amino-2-deoxy-D-glucose derivs. of the formula (I) are new:



(I)

(where R_1 is H, opt. substd. 1-7C alkyl, opt. substd. phenyl or opt. substd. benzyl;
R_2 is opt. substd. alkyl or opt. substd. phenyl;
R_3 and R_3' are H or a gp. of formula



$$\underset{\text{I}}{R_8\text{-}\overset{|}{C}H}\text{-}CONR_9\text{-}\underset{\text{II}}{CHR_{10}}\text{-}CONH\text{-}\underset{\text{III}}{\overset{R_{11}}{\overset{|}{C}H}}\text{-}(CH_2)_2\text{-}R_{12}$$

provided at least one of R_3 and R_3' is not H;
R_8 is H or 1-10C alkyl;
R_{10} is H, 1-7C alkyl, $HOCH_2$-, $HSCH_2$- or opt. substd. benzyl;
R_9 is H, or R_9 and R_{10} together form $-CH_2CH_2CH_2-$;
R_{11} and R_{12} are each opt. esterified or amidated COOH, or mono- or di-(1-7C alkyl)carbamoyl;
R_4, R_5 and R_5' are H, 2-21C aliphatic or aromatic acyl or 2-21C opt. substd. acyl;
when R_8 is lower alkyl, the stereochemistry at the asymmetric centre I can be either D or L;
when R_{10} is not H, the sterochemistry at asymmetric centre II is L; and
the stereochemistry at asymmetric centre III is D).

(I) are immunostimulants esp. for use with vaccines.

24.4.80 as 400566 (35pp916).
(E) ISR: FR2407938.

SETR- ★ D16 83099 C/47 ★EP--18-917
Accelerating growth of micro:organisms in solid culture medium - by subjecting medium to cyclic variations of pressure to improve aeration
SETRIC SOC ETUD TEC 08.05.79-FR-011956
(12.11.80) C12m-01
D/S: E(CH, DT, FL, GB, IT, NL, OE)

A fermentation process and a plant installation in which provision is made for a culture of micro-organisms in a solid culture medium to be aerated, for fermentation gases to be exhausted and for heat of exothermic reaction to be dissipated is new.

The culture medium is subjected to a cyclic variation of pressure. At the high pressure point in the cycle, a gas can penetrate to all parts of the medium. At the low pressure point of the cycle, fermentation gases are exhausted and heat is dissipated by evacuation of water vapour. After each cyclic change in pressure the new pressure is pref. maintained for a period as required by process characteristics.

Pressure variations pref. remain in the range 0.1 to 10 bars, esp. 0.5 to 2.0 bars. The cycle time is pref. 1 min. - 1 hr. Water lost as vapour exhausted at low press is pref. replaced by a similar quantity of water in liq. form.

Used for accelerating the growth of micro-organisms (esp. yeasts and fungi) in a solid culture medium. The process gives greatly enhanced growth of micro-organisms compared with aeration at constant pressure.
6.5.80 as 400606 (15pp448)
(F) ISR: DS-486282; FR2090548; FR2285454; DS-346460; US2970088.

INSE ★ D16 83157 C/47 ★FR 2447-965
Fermenting plant develops mushrooms for prodn. of animal feed - by protein enrichment of cellulosic and amylacedus particulate substrates
INST NAT RECH CHIMIQUE 01.02.79-FR-002625
C03 (D13) (03.10.80) C12n-01/14
A fermentation plant and a process for the culture of micro-organisms on a fermentable substrate of particulate solids.

The plant comprises an open-topped, vertical cylindrical vessel which is rotatable about its vertical axis. A diffuser is provided in the base of the vessel through which a gas, e.g. compressed air, can be injected into a fluid being processed in the vessel. A motorised rotary agitator is provided to mix the contents of the vessel.
1.2.79 as 002625 (22pp448).

CNRS D16 34450 Y/20 =GB 15, 1-992
Fixtation of organic cpds. contg. sugar residues - by oxidn. and coupling to a support contg. amino gps.
INST NAT SANTE RECH MED 27.08.76-FR-025898 (13.11.75-FR-034627)
*B04 S03 S05 (23.07.80) *BE-848-175 C07g-07 C08f-08 C12n-07 C12n-11/10 G01n-33/48*
Prodn. of a solid biological reagent from a macromolecular substance of biological origin contg. a CH_2OH gp. forming part of a carbohydrate moiety comprises (a) oxidising the substance to convert the CH_2OH gp. to a CHO gp. and (b) contacting the oxidised substance with an insol. solid support carrying side chains which bear a reactive amino gp. which reacts with the CHO gp. to link the substance to the support.

The coupling does not involve biologically active gps.. The process provides an attachment of high stability with satisfactory yields, without impairing the specific activity of the bound organic cpd.. The macromolecular substance may be a glycoprotein (e.g. antibody, antigen, rmone etc.), polysaccharide or glycolipid. Diagnostic gents with improved sensitivity can be obtd.. 11.11.76 047047 (+ 26.3.76 - FR - 008966) (26pp945).

NRS D16 34450 Y/20 =GB 1571-993

xtation of organic cpds. contg. sugar residues - by oxidn. and upling to a support contg. amino gps.

INST NAT SANTE RECH MED 27.08.76-FR-025898 (13.11.75-FR-034627)

*B04 S03 S05 (23.07.80) *BE-848-175 C08f-08*

rodn. of insol. solid support having side chains bearing mino gps. capable of reacting with aldehyde gps. attached to macromolecular substances to bind the macromoleular substance to the support, is described.

Method comprises (a) reacting in the presence of conensing or coupling agent, starting material comprising articles of solid insol. support, with reagent selected rom hexamethylene diamine, 1, 3-diaminopropane, pydrazinobenzoic acid, adipic dihydrazide, spermidine, , 3'-diaminodipropylamine, spermine, β-alanine, - minocaproic acid, amino acids having carboxyl gps. sterified by N-hydroxyl-succinimide gp. amino acids ontg. both SHand NH_2 gps. capable of forming heterocycle on reaction with CHO gp. formed from the CH_2OH p. of carbohydrate moiety, and basic dyes; (b) where he side chains of step (a) are terminated by an acid unction, reacting the prod. with aliphatic or aromatic olyamines or dihydrazine, and (c) where the side chains f the prod. from step (a) are terminated by NH_2 gps., pt. reacting prod. with amino acid.

Support is used in the coupling of proteins. 11.11.76 as 14138/79 Div.ex. 1571992 (+ 26.3.76 - FR - 008966) 9pp964).

LIL D16 68877 Y/39 =GB 1572-114

ynergistic coccidiocidal compsns. for poultry - contg. two onophoric coccidiocides obtained by fermentation e.g. monensine nd A-204

ELI LILLY & CO 25.03.76-US-670486

*B04 C03 (23.07.80) *BE-852-928 A61k-35/66*

Novel coccidiocidal compsns. for poultry comprises wo ionophorous fermentation derived coccidiocides associated witha poultry feedstuff or drinking water. The ctive ingredients are monensin, A-204, nigericin, A-8086, A-28695 or lasalocoid or their derivs..

Pref. the active ingredients are monensin and A-204, sp. at 25-50 and 5-16.5 ppm resp..

The combination of active ingredients is synergistic. 18.3.77 as 011660 (7pp974).

NAM D16 45860 A/26 =GB 1572-196

orous fibre prepn. from polymer soln. or melt - by dispersing mmiscible liquid or fine solid, spinning and removing disperse hase

SNAMPROGETTI SPA 23.12.76-IT-030799

*A32 B04 F01 (A18 A28 A94) (23.07.80) *BE-862-287 D01d-05/24 D01f-02/28*

rodn. of a cellulosic filament having a porous structure comprises (1) dissolving a cellulosic material in a solvent; (2) thoroughly dispersing in the soln. a liq. immisible with the soln.; (3) spinning the resultant dispersion o obtain a filament; and (4) removing from the filament he disperse phase to give the desired prod.. Pref. ellulosic material is cellulose triacetate and solvent sed to dissolve it is methylene dichloride.

The porous filament may be used as a substrate for hemical reagents; as a substrate for chelating agents; or preparing ion exchange materials; for insolubilising soluble catalyst; for insolubilising a protein, enzyme r enzyme inhibitor; or for preparing a material capable f removing a component from a mixt. of a molecular sieve. 6.12.77 as 050824 (4pp963).

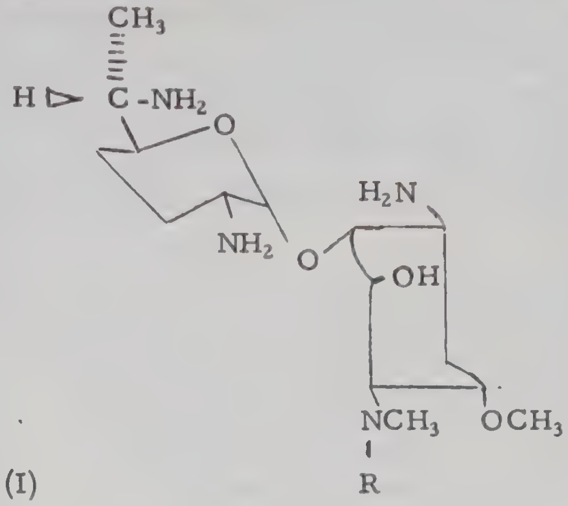
KOWA D16 73117 A/41 =GB 1579-312

Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - with road spectrum antibacterial activity

KOWA KK 08.11.77-JA-133051 (24.03.77-JA-031580)

*B03 (19.11.80) *DT2813-021 A61k-31/35 C07d-309/14*

Antibiotic KA-6606 of formula (I) and its acid addn. salts are new.



(I)

In (I) R is H, $-COCH_2NH_2$, $-COCH_2NHCONH_2$ or $-COCH_2NHCHO$.

The antibiotic KA-6606-producing strain is of the genus Saccharopolyspora esp. Saccharopolyspora hirsuta KC-6606. (I) exhibit a broad spectrum of antibacterial activity.

17.3.78 as 010696 (20pp954).

BRPE D16 32468 A/18 =GB 1579-344

Determining toxicity of industrial effluent, esp. from refineries - by the effect on oxygen absorption by microorganisms in exponential growth phase

BRITISH PETROLEUM LTD 25.10.76-GB-044223

*H05 S03 S05 (D15) (19.11.80) *DT2747-567 G01n-33/18 +C12q-01 G01n-27/26*

Toxicity of an industrial effluent is estimated by (1) forming a mixt. of an aerobic single cell microorganism in the exponential growth phase, an aq. nutrient medium with satd. dissolved O_2-concn. and a measured amt. of the effluent; (2) measuring the change (x) in the rate of uptake by the cells of the dissolved O_2 during a holding period in the absence of further O_2 in which microorganism growth takes place; (3) calculating the specific growth rate of the cells from x; and (4) comparing the specific growth rate of the treated cells with that of untreated cells.

The method can be carried out by unskilled personnel, is rapid and can be carried out on a large number of samples per day. Used partic. to monitor refinery effluents. 24.10.77 (13pp945).

RESE- D16 61264 Y/35 #GB 1579-628

Testing and regulating gas producing rubbish dumps - using sonde gauges to prevent extraction rate drawing in air

RESERVE SYNTHETIC F 28.04.77-BE-854070 (21.04.77-GB-016671)

*+P11 Q49 (19.11.80) *BE-854-070 E21b-43*

The maximum rate at which landfill gas can be withdrawn without drawing air into the fill sufficiently to prevent methane formation is determined by withdrawing gas from a well in the fill at a set rate for a given time while detecting pressure in the fill outside the well, then withdrawing gas at a second rate during a further period, and establishing a relationship between rates and pressures.

The maximum rate is then determined as the withdrawal rate which could correspond to a measured pressure of zero gauge. The landfill pref. has a cover material and a cover probe inserted into the fill adjacent the well for measuring the pressure. 21.4.77 as 016671 (11pp1358).

MITB D16 58413 Y/33 #GB 1579-632

Single cell protein and fat mfr. by cell cultivation - using medium of vegetable starch liquefied by amylase

MITSUI SHIPBUILDING ENGG 24.12.75-JA-154368 (16.06.77-GB-025200)

*(D13) (19.11.80) *J52079-084 C12r-01/72 +C12n-01/22*

Microbial protein and lipid are produced from vegetable carbohydrates by liquefying carbohydrate with dextrinogenic enzyme, adding inorganic nutrient salts, and inoculating with a culture organism. A saccharogenic amylase is added aseptically during culture, and the cultured cells containing the protein and lipid are separated from the medium.

The carbohydrate is pref. starch and the organism is Candida utilis or Rhodotorula glutinis which is centrifugally separated from the medium. The medium is pref. first sterilised at 120-135°C under pressure and the process is carried out in three serially-arranged tanks held at pressures of 1000-2500 mm, 600-1800 mm and 400-1500 mm water respectively to control flow between tanks. 16.6.77 as 025200 (8pp1358).

MITB D16 58413 Y/33 #GB 1579-633

Single cell protein and fat mfr. by cell cultivation - using medium of vegetable starch liquefied by amylase

MITSUI SHIPBUILDING ENGG 24.12.75-JA-154368 (16.06.77-GB-025200)

*(D13) (19.11.80) *J52079-084 C12n-01 C12r-01/72*

In a continuous multi-stage culture process for producing microbial protein and lipid, fermentation liquor flows between individual culture tanks with the pressures in tanks held at different values to control the flows.

The method is particularly applicable to liquefaction of vegetable carbohydrate with a dextinogenic enzyme, followed by culture with a yeast and simultaneous saccharification with added amylase. The starting material is e.g. potato starch or waste liquor from starch-manufacturing plant. The method permits continuous efficient and rapid treatment of large amounts of material. 16.6.77 as 001150/79 Div.ex. 1579632 (7pp1358).

BRIY ★ D16 83216 C/47 ★J5 5102-398

Antibacterial Bu-2349A - produced by aerobic culture of microorganism of Bacillus strain in aq. nutrient medium

BRISTOL BANYU KK 26.10.78-US-955035

B04 (05.08.80) A61k-31/71 C07h-15/20 C12p-19/48 C12r-01/07

Antibiotic Bu-2349A and its acid adduct salts are described having the properties free based form molecular formula $C_{44}H_{85-87}N_7O_{24-25}$; (ii) components: L-alanine, p-hydroxybenzoic acid, D-galactose, D-ribose, 2,4-diamino-2,4,6-trideoxyhexose, N-(δ-aminobutyl)-N'-(γ-aminopropyl)-1,4-diaminobutane, unidentified cpd. having 6 carbon atoms skelton; (iii) the antibiotic may be converted into acid adduct salts hydrochloride salt of the substance is white amorphous solid substance; (iv) soluble in water; slightly soluble in (m)ethanol, DMSO and DMF and insoluble in organic solvent; (v) positive to ninhydrin reaction, anthron reaction, Mohrlish reactions, Fehling reagent and Remini's reagent; negative to $FeCl_3$ and Sakaguchi's reagent; (vi) decomposes above 215°C; (vii) anal. compsn. (Ca) C 44.48; H 7.34; N 8.37; Cl 6.44, O 33.37 (%) (from difference); (viii) specific rotation $(a)^{22}_{D}$ = + 109° (C 1.0, H_2O); (ix) Gel thin layer chromotography by means of chloroform : methanol : 28% ammonium hydroxide : H_2O (1 : 4 : 2 : 1 V/V) Rf 0.27; Solvent methanol : 10% ammonium acetate (1 : 1 V/V) Rf 0.14, Solvent system : n-propanol : 28% ammonium hydroxide (4 : 105 : 60 V/V), Rf 0.06; (x) specified infrared sbsorption spectra (pellet in KBr) and NMR specrra (dueterium oxide 15% concn. of soln.). 26.10.79 as 137848/79 (18pp)

KYOW ★ D16 83384 C/47 ★J5 5129-297

Antibiotic DC-38-B useful as an anticancer agent - prepd. by cultivating Streptomyces microorganisms

KYOWA HAKKO KOGYO KK 00.00.79-JA-036883 (25.10.78-JA-131397)

B04 (06.10.80) A61k-35/74 C07g-11 C12p-01/06

The antibiotic has the following properties: (1) elemental analysis : H 5.23%; C 65.69%. (2) mol.wt. : 494. (3) mol. formula : $C_{27}H_{26}O_9$; (4) m.pt. : 1701175°C (decompsn.). (5) a given IR spectrum (KBr). (6) fluorescence spectrum (excitation light 428nm) : 486nm. (7) specific rotation $[a]^{20}_{D}$ = -46° 1° (c=0.3, DMSO), (8) solubility - easily soluble in acetone, benzene, ethyl acetate, methanol and chloroform; slightly soluble in water, petroleum ether and diethyl ether, (9) stability : unstable to sun-light; slightly stable in acid; partic. unstable in a base; stable in the powdered state as a medium-acidic soln. under light-shielding. (10) †LC (Silic AR CC-4 (RTM), developed at room temp. for 3 hrs.) : Rf of 0.20 (chloroform : CH_2OH of 90:10 by vol.) and 2.40 (acetone : chloroform 67.33 by vol.).

Prepn. comprises cultivating a microorganism belonging to the genus Streptomyces and capable of producing DC-38-B, specifically St. gilyotanareus 0-7 (FERM-P No. 4649) and St. griscologilbus 4916 (FERM-P No. 4648), in a medium to accumulate DC-38-B in the culture and recovering DC-38-B from the culture. 25.10.78 as 036883 (9pp)

MATU ★ D16 83452 C/47 ★J5 5129-745

Enzyme electrode - comprises film of e.g. epoxy resin contg. dispersed electroconductive substance, e.g. carbon on base material, with enzyme fixed to film

MATSUSHITA ELEC IND KK 29.03.79-JA-038157

A82 J04 (07.10.80) C12q-01 G01n-27/30

Electrode comprises an electroconductive film consisting of film-forming substance (e.g. alkali metal silicate, synthetic resin or rubber) into which an electroconductive substance (e.g. C, Nobel metal, metal carbide or conductive metal oxide) is dispersed on the surface of a base matter, and enzyme fixed on the film. Film-forming substance is e.g. water glass, epoxy resin, polymethyl methacrylate, styrene-butadiene rubber, etc.

High quality enzyme electrode of opt. electrode surface area and electrode form can be easily obtd. The electrode exhibits quick response to the addn. of substrate and good linearity of response to the change of concn. of substrate and can be reused after washing. The electrode is useful for determining easily and rapidly the concn. of substrate or cell converting chemical energy of substrate into electrical energy. 29.3.79 as 038157 (4pp50)

ASAH ★ D16 83455 C/47 ★J5 5129-755

Filter for collecting and sampling leucocyte - prepd. by coating surface of fibrous substance e.g. polyester fibre, with antithrombus material

ASAHI CHEMICAL IND KK 30.03.79-JA-036858

A96 B04 J01 (07.10.80) G01n-33/50

A leucocyte collecting and sampling filter in claimed. It use comprises filling a surface-treated fibrous substance, formed by coating the surface of fibrous substance (e.g. polyester fibre cotton of average dia. < 10µ) with antithrombus material (e.g. polyether-urethane, polyhydroxyethyl methacrylate or silicone), in a vessel.

With the use of the filter, leucocyte can be effectively collected and sampled with high recovery rate, and mixing of erythrocyte and soterocyte in the collected leucocyte is reduced. The operation is simple and can be carried out in short time.

In an example, cotton-form polyester fibre (0.7 denier) is dipped in polyether-polyurethane (regulated to 3 g/dl) centrifuged to remove excess of polyether-urethane, loosened, and dried. The resulting surface-treated fibrous matter, 0.39 g., is filled in a vessel of 10mm. in inner dia. and 30mm in length, forming a leucocyte collecting filter. 30.3.79 as 036858 (4pp50)

TAKE ★ D16 83663 C/47 ★J5 5130-993

Hypha elongation controlling factor - obtd. by culturing microorganism of e.g. Sclerotium, Coprinus or Stereum genus

TAKEDA CHEMICAL IND KK 02.04.79-JA-039561

B04 (11.10.80) C07g-17 C12n-01/38 C12p-01/02 C12r-01/64

Hypha elongation controlling factor has the following properties (as hydrochloride): (1) appearance: white-slightly yellow white powder; (2) m.pt. 220°C; (3) elemental analysis (%): C45.79 ±1; H 8.01 ± 0.5; N3.24 ± 0.5; (4) UV ray absorption sepctrum: $\lambda^{H_2O}_{max.}$ nm ($E^{1\%}_{1cm}$) 260 ± 2nm (29.2); (5) major IR absorption spectrum (cm^{-1}) (KBr method): 3160-2980, 2810, 2380-2320, 1990, 1750, 1710-1680, 1440, 1390, 1240-1210, 1090-1060; (6) readily soluble in water, methanol and ethanol, soluble in n-butanol and acetone, carcely soluble or insol. in petroleum ether and n-hexanes. (6) colouring reaction: positive to ninhydrin and anthrone reactions, negative to Fehling and Elson-Morgan reactions.

Prepn. of the hypha elongation controlling factor comprises culturing a strain capable of producing the hypha elongation controlling factor and of the genus of Phizoctonia Sclerotium, Helicobasidium, Coprinus or Stereum, to accumulate the factor, and recovering the factor.

The factor prevents specifically the elongation of hypha of Rhizoctonia Coprinus etc. and can be used safely as fungicide for sheath blight of rice. 2.4.79 as 039561 (5pp108)

KANE ★ D16 83743 C/47 ★J8 0041-325

Enzymatic scouring of silk material - using aq. soln. of lipase to indicate compsn. activity of pupa oil generated

KANEBO KK 08.01.73-JA-005467

F01 (23.10.80) D01c-03/02 D06m-16

In scouring of spun silk material with enzyme, there is used aq.soln. contg. lipase to indicate decompsn. activity of pupa oil generated by chromobacteraceae as enzyme soln. The treatment with lipase is carried out at 30-70°C.(40-60)°C to give optimum amt. of pupa oil. 8.1.73 as 005467, D01c-3/02, D06m-16/00 (23.10.80) KANEBO KK (3pp84) (J49092381)

STAD D16 31270 T/20 =J8 0041-755

Single cell protein - yeast culture by aerobic bacterial fermentation using ethanol as only carbon source

STANDARD OIL CO (IND) 30.10.70-US-085334

*+Q78 (25.10.80) *DT2154-091 F28d-07 +A23j-01/18 C12n-01/16*

Aerobic yeast culture for prodn.of protein-rich yeasts for human consumption, comprises (a) keeping fermentation zone at 26.7-37.8°C to activate cell reproduction and supplying mixt. of aq. ammoniacal ethanolic substrate and main nutrient elements, (b) continuously introducing a dispersed O_2-yielding gas stream at superatmos.press, into aq.solvent mixt. (c) continuously replacing EtOH in fermentation soln. by adding aq.EtOH soln. (d) continuously replacing supply of macronutrient elements and maintaining a const.concn. in aq. fermentation soln. (e) separately replacing the micronutrient elements, including Fe (esp. as Fe(III) citrate) supply, by continuously adding an aq. soln. thereof into fermentation soln. and maintaining a const.concn. (f) separately replacing NH_3 supply by continuously addn. thereof in an amt. sufficient to maintain pH 3.5-5.5, (g) continuously removing a yeast cell suspension in part of fermentation soln. and (h) continuously discharging an O_2-poor gas stream from fermentation zone through a pressure-sensitive valve. 30.10.71 as 086673 (clg. 30.10.70-US-085334) C12n-1/16, A23j-1/18, F28d-7/00 (25.10.80) STANDARD OIL CO. (13pp) (J47009738)

TAKE D16 45774 U/33 =J8 0041-756

Fermentative prodn of ergosterol or its esters - using trichoderma, fusarium or cephalosporium spp

TAKEDA CHEMICAL IND KK 28.01.72-JA-010765

*B01 (25.10.80) *DT2303-495 +C12p-33 C12r-01/64*

Ergosteroi (I) or its esters are produced, by culturing microorganisms of the genus Trichoderma, Fusarium and Cephalosporium which are capable of accumulating (I) or its esters extra cellularly in a nutrient medium until (I) or its esters have accumulated, and isolating (I) from the medium in free form or in the form of an ester. The microorganism is pref. Trichoderma sp. IFO 6355, T.viride, Fusarium sp.IFO 8884 (ATCC 20192), F.oxysporum, F.roseum, Cephalosporium coremioides or C.sclerotigenum. The C source of the culture medium is pref. a 10-20C n-paraffin. (I) and its esters are inters.for vitamin D and synthetic steroid hormones. 28.1.72 as 010765, C12p-33/00 C12r-1/645 (25.10.80) TAKEDA CHEM.INDS.LTD. (3pp) (J48080783)

DORE/ ★ D16 C/47 ★PT --71-076

Anaerobic fermentation equipment - has flexible resilient membrane covering open top of digester tank, with outer transparent surface and inner reflecting surface

DOREY L DE A 09.04.80-PT-071076

Q32 (30.10.80) B65d C02c

ANVR D16 75780 W/46 =SU -727-112

Water-soluble extracts of corynebacteria - contg. diaminpimelic acid, as immunological additives to increase antibody titres

AGENCE NAT VALORISATION 06.05.74-FR-015570

*B04 C03 (10.04.80) *BE-828-635 A61k-35/74*

Water-soluble extracts of low mol.wt. which contains diaminopimelic acid are prepd from corynebacterium(esp C parvum) cells in which defatted bacterial residue of the corynebacterium cells are gently extracted and the water-soluble extracts are isolated by physico-chemical methods Used as imunological additives, for human and veterinary use to increase resistance to viral and bacterial infections by increasing the formation of antibodies. The extracts have no arthrogenic activity.

Jolle,P.,Miglignor-Samour,D.,Bul.13/5.4.80.5.5.75. as131288(3pp).

MOVA= ★ D16 84058 C/47 ★SU -727-680

Microorganisms culture foam breaker - has corrugated discs with gas feeding capillary tubes on inner ridges

MOSC VACCINE SERUM 13.06.78-SU-628201

(15.04.80) C12b-01/18

Simplified foam breaker facilitating servicing of the microorganisms culture unithas a corrugated disc with ridges on its inside surface. The ridges feature capillary tubes for gas feeding exhibiting conical ends at the inlet. The outer ridges of the disc corrugations have holes with sharp edges. The efficient foam breaking is due to piercing of bubbles of gas-fluid mixture by the capillary tubes. In addition, the turning of the corrugated disc results in variable pressure formation which contributes to foam breaking.

Arzumanyan,Sh.O.,Basnakyan,I.A.,Koryakin,E.V.,et al Bul.14/15.4.80.13.6.78.as628201(2pp89).

OLYU D16 65664 A/37 =US 4231-403

Fluid feed device for automatic incubator - with detachable pipe inlets and swivelling dispenser

OLYMPUS OPTICAL KK 05.04.77-JA-U41592 (02.03.77-JA-U24766)

*A88 +Q31 (04.11.80) *DT2809-032 +B65b-03/04*

Liq. supply switching system for automatic culture appts. consists of a hollow shaft secured to an outer plate of an incubator, a drive shaft which rotates and rises in the hollow shaft having a peripheral keyway and a cam groove in which a pin on the hollow shaft fits, and a rotating plate carrying a key which engages the keyway and rotates with the drive shaft.

Vertical movement of the drive shaft is controlled by a cam on the output shaft of a drive motor which abuts the upper end face of the drive shaft. The angular position of the drive shaft is detected and the vertical movement of the shaft can be stopped to align the outlet of a discharge tube supported by the drive shaft.

Skilled operators are not required. 26.12.78 as 973116 Div.ex 4179339 (+ 5.4.77 - JA - U41589)(6pp1376)

DIAG- ★ D16 84114 C/47 ★US 4231-750

Competitive binding assay - with light emitting tracers and photon counting with discrimination to avoid false results

DIAGNOSTIC REAGENTS 13.12.77-US-860168 (24.11.75-US-634797)

B04 J04 S03 (04.11.80) G01n-21/22 G01n-31/14 G01n-33/16

Competitive binding assay for determn. of the concn. of a substance (I) in a fluid sample involves providing a light emitting tracer cpd. (II) that defines the concn. of (I). (II) is detected by a photon counting method that (a) discriminates between the photons emitted from (II) and noise and non-specific light by subtraction of the counts emitted by a tracer-free sample and (2) discriminates between the photons emitted by (II) and the quenching effects of the sample by counting only photons of a predetermined pulse height.

(I) can be determined quantitatively at very low concns. with good accuracy (II) may be a fluorescent cpd., but phosphorescence, luminescence induced by X-rays or radionuclide decay etc. may also be used. (I) include substances in biological media, esp. antigens and antibodies in competitive binding assays or immunoassays, drug metabolites in urine, therapeutic agents in body fluids etc. (I) also include substances that are themselves fluorescent such as lanthanide transition elements used in the fluors of cathode ray tubes, dyes esp. those of the fluorescent type used in laundering and in tooth prepns. and numerous organic cpd. 13.12.77 as 860168 (11pp1248)

SULZ D16 73792 B/41 =US 4231-862

Activated sludge preservation - by flushing with gas containing carbon di:oxide and less oxygen than air (OE 15.7.79)

SULZER BROTHERS LTD 03.04.78-CH-003530
*(04.11.80) *DT2815-199 C02f-03/12*

Activated sludge is preserved by flushing the sludge with gas contg. O_2 and CO_2. The O_2 content of the gas is reduced relative to air.

Pref. the gas contains $< 10\%$ vol O_2, and $\geq 10\%$ vol. CO_2. Sludge can be preserved cheaply. 22.3.79 as 022691 (5pp1376)

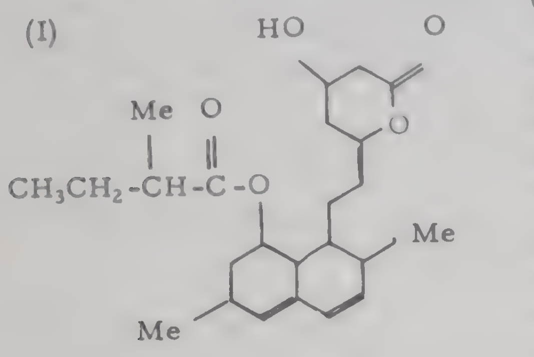
MERI ★ D16 84207 C/47 ★US 4231-938

Lactone cpd. designated MSD803, obtd. by culturing Aspergillus - is hypocholesterolaemic and plant-protecting antifungal

MERCK & CO INC 15.06.79-US-048946
B03 C02 (04.11.80) C07d-309/30

The lactone of formula (I) (MSD-803) is new:

(I)



(I) is an inhibitor of the biosynthesis of cholesterol in mammals and hence may be used for the treatment of atherosclerosis and hyperlipaemia. It may be administered orally or parenterally; pref. orally at 2-2000 (pref. 10-100) mg in 3 or 4 divided doses daily. 15.6.79 as 048946 (9pp914)

SCHE ★ D16 84238 C/47 ★US 4232-006

Combating fungal infections in mammals - by admin. of antibiotic W-10 complex 20561 or 20562 obtd. from Aeromonas spp. NRRL B-11053

SCHERING CORP 19.10.78-US-953051 (02.02.77-US-767102)
B03 C02 (04.11.80) A61k-31/71 A61k-37 C07c-103/52 C07h-17

Fungal infection in a mammal is combatted by admin. of antibiotic W-10 complex, Antibiotic 20561 or Antibiotic 20562.

The W-10 complex is obtd. by cultivation of Aeromonas spp. NRRL B-11053 in a nutrient medium, and Antibiotics 20561-2 are sepd. chromatographically from the complex, as described in US 4137224 (Der. 11786B). The complex and its components are administered at 1-10 mg/kg daily or are applied topically. 19.10.78 as 953051 Div. ex 4137224 (10pp1248)

STBR ★ D16 84252 C/47 ★US 4232-045

Prepn. of free-flowing particulate bulk baker's yeast - by treatment with micronised, non-deliquescent drying agent

STANDARD BRANDS INC 06.10.77-US-839865
(04.11.80) C12c-11/26

Free-flowing, particulate bulk yeast (I) prod. is prepd. as follows· bulk baker's (I) of H_2O content 65-70% is mixed with 0.5-3 (by wt. of (I)) of a drying agent (II) of particle size $<$ 100 mμ. (I) is powdered hydrophilic SiO_2, micronised wood pulp, or micronised cellulose.

(II) pref. have particle size 10-30 mμ and amt. used is pref. 0.5-2% by wt. of (I). Before treatment, the bulk (I) is granulated to average particle dia. $\not>$ 0.25, pref. 0.04-0.15 inches. Bulk (I) pref. has H_2O-content 68-69% by wt.

Addn. of (II) improves the flowability of the yeast (without additional drying) over extended periods of time. In addn., the treatment stabilises the colour of the bulk (I) prod. 6.10.77 as 839865 (4pp478)

ENGE/ D16 60278 B/33 =US 4232-120

Appts. for inoculating or transferring microbiological cultures - comprises a needle for effecting the transfer and flow of protective gas around the needle

ENGELBRECHT E (PROM-) 02.02.78-CH-001129
*S03 (04.11.80) *GB2013-885 +C12q-01/24*

Appts. for transferring or inoculating microbiological cultures under a protective gas includes a hollow base carrying a needle for transferring culture between receptacles, and a nozzle on the base to direct a gas flow parallel to and around the needle.

The gas flow is pref. spaced sufficiently from the needle to avoid any direct pressure on the culture which might dislodge it from the needle. The nozzle is pref. formed by a circular arrangement of longitudinal ducts in the base around and parallel to the needle axis. There may be an auxiliary nozzle to expel gas laterally of the needle. 22.1.79 as 005348 (5pp1358)

EAST ★ D16 84282 C/47 ★US 4232-121

Selection of methine dyes which inhibit cell growth - by identifying cpds. which sorb to cells, and which have negative redn. potential

EASTMAN KODAK CO 25.09.78-US-945275
(04.11.80) C12q-01/18

Methine dyes (I) which inhibit cell growth are selected as follows: (a) the redn. potential (E_R) of (I) is determined; (b) the ability of (I) to bind to the cells is determined; and (c) (I) are selected which have E_R more negative than ca -OS volt and which bind to the cells at $\not<$ 10%.

Simple method effectively selects (I) which may be used to inhibit cell growth, esp. that of bacteria. The method is suitable for the selection of (I) which inhibit the growth of both prokaryotic and eukaryotic cells and cells of single-celled or multicelled organisms, pref. bacteria. 25.9.78 as 945275 (10pp478)

MANN/ ★ D16 84284 C/47 ★US 4232-124

Plasminogen activator prodn. - by culturing human diploid lung cells in nutrient medium contg. inducer

MANN G F 23.04.79-US-032218 (05.10.77-US-839433)
B04 (04.11.80) C12n-09/72

Prodn. of plasminogen activator comprises culturing human diploid lung cells in-vitro in an aq. nutrient maintenance medium free of serum and contg. an inducer which enhances prodn. of plasminogen activator by the cells. Culturing is continued until the content of plasminogen activator in the medium is $>$ 100 CTA units/ml. The nutrient medium is then sepd. from the cells.

Pref. the inducer is lactalbumin hydrolysate present at a concn. of 0.1-1.0% w/v in the medium. Pref. the medium is changed periodically, whereby multiple harvests of activator are obtd. from the same cell culture.

The great longevity of normal human lung cell strains makes the diploid cell a reliable cell source material for prodn. of plasminagen activator (i.e. urokinase) by in-vitro tissue cell culture techniques. 23.4.79 as 032218 (5pp)

See Also

D12 SU 727189
D13 US 4232122
D23 J8 0041676
D13 J8 0042081
D15 GB 1579656
D13 US 4232044
D15 SU 727207

D17: SUGAR; STARCH

KUCA/ ★ D17 C/47 ★CS 7905-576

D-Manno-heptulose prepn.

KUCAR S 15.08.79-CS-005576
E13 (31.07.80) C08b-15

DOST/ ★ D17 C/47 ★CS 7906-309

Appts. for continuous, counter-current extraction of beet chips

DOSTAL J 19.09.79-CS-006309
(31.07.80) C13d-01/10

AZ/ ★ D17 C/47 ★CS 7908-846
alve closure control
KLAZAR J 17.12.79-CS-008846
(31.07.80) C13f-01/02

LB/ D17 90901 R/49 =DS 1816-117
emoval of pith from sugar cane stems
TILBY S E (TIL /) 20.12.67-US-692185
*(13.11.80) *FR1599-364 +C13c-01*

ounterpressure cylinder in the stripping station of a achine for sepg. the marrow from the bark of sugar anes, which are fed forward slit down the centre, has eeth inclined oppositely to the direction of motion. Stripping cylinder has scraping ribs on its circumference nd is driven in the direction of feeding at a higher speed han that of the counter pressure cylinder. Canes are fed orward by pairs of guide cylinders to each of which a litting knife is assigned and the gap between the stripping ylinders at the stripping station is less than the thickness f the surface layer of bark on the canes.

Machine runs at high speed completely removing the marrow in a single operation and short lengths of cane can be handled completely efficiently. 20.12.68 as 816117 6pp1045).

DOWC ★ D17 82991 C/47 ★EP --18-621
Recovery of hydrochloric acid from a cellulose hydrolysate - by extraction using a higher alcohol solvent
DOW CHEMICAL CO 30.04.79-US-034784
E36 (12.11.80) B01d-11/04 C01b-07/07 C13k-01/04
D/S: E(BE, DT, FR, GB, NL, SW)

Conc. HCl is obtd. by contacting the crude prod., comprising sugars and HCl, prepd. by acid hydrolysis of a cellulose-contg. material, with at least one 5-9C alcohol, separating the HCl-enriched alcohol and recovering the HCl from the alcohol.

The process operates under mild conditions and with relatively low energy requirements, produces high yields of sugars and conc. HCl, and employs a relatively inexpensive extracting agent. The sugars are useful in the food and chemical industries. The HCl can be recycled to the hydrolysis step.

28.4.80 as 102294 (34pp558).
(E) ISR: CH-609092; US4036939; DT1667537.

AGEN D17 74834 V/43 =J8 0041-760
Fructose isolation from invert sugar - hydroxide-type anion exchanger reduces sulphite impurities from primary exchanger
AGENCY OF IND SCI TECH 16.05.72-JA-048489
*(25.10.80) *J49012-047 +C13k-03 C13k-11*

Invert sugar soln. was passed through bisulphite-type anion exchanger followed by hydroxide-type anion exchanger to isolate fructose. The fructose-contg.eluent fractions were free from SO_3^{2-} and HSO_3- which were present in eluent when bisulphite-type anion exchanger was used alone. 16.5.72 as 048489 C13k-3/00, 11/00 (25.10.80) AGENCY OF IND. SCIENCES (4pp) (J49012047)

CHEN/ ★ D17 83798 C/47 ★NL 7903-513
Continuous sepn. of syrup into sugar crystals and molasses - by extracting on suction conveyor washing and drying
CHEN Z 04.05.79-NL-003513
(06.11.80) C13f-01/04

Perforated conveyor belt arrangement includes means of dosing and spreading on its surface, a uniform and flat layer of thick boiled syrup from the vacuum pans, in a sugar factory. Suction box is positioned beneath the belt to extract the molasses which is collected and pumped into storage tanks. Scrapers are fitted for removing the crystals of sugar from the conveyor, and the installation works continuously.

Used to remedy the failings of sepn. by means of centrifuges in which, in addn. to high energy costs, considerable losses of sugar into the molasses take place. Serious fluctuations in the power supply to the plant generally due to the intermittently heavy loading of the centrifuges are also avoided.
4.5.79. as 003513 (8pp1014).

PROC- ★ D17 84068 C/47 ★US 4231-136
De-pithing fibrous vegetable materials - tandem vertical de-pith units with first discharging directly into second
PROCESS EVALUATION 28.08.78-US-937575 (22.10.75-US-624686)
F01 (F09) (04.11.80) D01b-01/30

The tandem vertical depith units each comprise an upright screen encircling a rotor with hammers which drive pith through the screens, partically depithed fibres falling from the first unit directly into the second unit pref. via a circular conduit.

Sugarcane bagasse esp. is depithed at high throughput rates and with min. fibres damage. 28.8.78 as 937575 (+ 29.6.77 - US - 811090)(7pp006)

D18: SKINS; HIDES; LEATHER; TOBACCO

OME/ ★ D18 C/47 ★CS 7903-348
eather thermal treatment appts.
TOMEK L 16.05.79-CS-003348
(31.07.80) C14b-01/46

AMBR/ ★ D18 C/47 ★CS 7907-028
Cation-active lubricant for chrome leathers
AMBROZ V 17.10.79-CS-007028
(31.07.80) C10m-03/08 C14c-09/02

ROHG ★ D18 82713 C/47 ★DT 2917-376
Simultaneous swelling and unhairing of hides - by alkaline protease treatment after cleaving di:sulphide linkages
ROHM GMBH 28.04.79-DT-917376
(13.11.80) C14c-01/06

Treatment of hides is carried out by (a) pretreating the hide, after removal of preserving salts, with substances (I) capable of cleaving disulphide linkages at an acidic pH; and (b) simultaneously loosening hair and swelling the hide by treating with alkaline protease at a pH of 11-13.

Requires fewer steps than the traditional process (e.g. softening prior to enzyme treatment is eliminated), gives high-quality unhaired hides, and allows the hair to be recovered in an optimum state. 28.4.79 as 917376 (16pp367)

JONE/ D18 00442 A/01 =GB 1579-555
Processing solid tannery waste - by burning in industrial furnace combustion zone, further oxidn. of removed gases and removal of ashes
JONES B H 08.11.76-US-740016 (09.06.76-US-694244)
*Q73 (19.11.80) *DT2726-395 C22b-34/32*

Waste solids from a tannery contg. trivalent Cr and organic material is processed by (a) burning $\geqslant 1$ ton waste/day in the combustion zone (I) of an industrial furnace at $\leqslant 1200$ (800-1000)°F to convert (part of) the organic material to gases, and the Cr to ash; (b) removing the gases from (I) and subjecting them to further oxidn.; and (c) removing the ash from the furnace.

Pref. the waste solids comprise leather scrap, part of which esp. comprises a spent filter body of ground scrap through which tannery waste liq. has been filtered. Process yields a source of chromic or chromate ore. Environmental pollution is minimised. 9.6.77 as 024105

(8pp936).

VOLG= ★ D18 84044 C/47 ★SU -727-623
Higher fatty acids methyl ester mixt. prepn. - includes esterification of synthetic fatty acid fraction with methanol and multistage refining, used in oiling leather
VOLGODONSK SURFACTA 18.09.78-SU-668458
E17 (20.04.80) C07c-67/08 C07c-69/22 C14c-09/02

Methyl esters of 18-25C synthetic fatty acids, useful in leather oiling compsns are prepd by the esterification of corresp higher fatty acids with methanol in the presence of sulphuric acid.

The yield of the final prod is increased(by 25-30%)if synthetic fatty acid fraction(b.pt. 370-430°C and acid no. 90-120 mg KOH/g), obtd by oxidn of paraffinic hydrocarbons with air and distilling off lower aliphatic acids, is esterified with methanol followed by-distillation of the resulting methyl esters at 230-340°C/1-3mm Hg. The resulting prod is neutralised with alkali and prod after refining is oxidised with air in liquid phase at elevated temp (pref 120°C) in the presence of 0.03-0.08 wt. % of variable valency metal cpds(e.g. oxides or salts of Mn and/or Cr or V), followed by sludge removal after washing with hot water and settling for 1.5 hrs.
Drozdov, A.S., Volkova, L.D., Yatsenko, L.V., et al Bul. 14/15.4.80.18.9.78.as668458(3pp938).

OLIN ★ D18 84087 C/47 ★US 4231-377
Wrapper for smoking articles - to reduce visible side-stream smoke, contg. magnesium oxide, and alkali metal salt
OLIN CORP 30.08.78-US-937936
E12 F09 P15 (E33 E34) (04.11.80) A24b-15/28 A24d-01/02

Wrapper for the tobacco charge in a smoking article consists of a combustible cellulosic sheet (I) contg. $\nless$ 15% MgO (and/or $Mg(OH)_2$) and $\nless$ 0.5% of a chemical adjuvant salt (II) (both by wt. of wrapper). (II) is an alkali metal acetate, carbonate, citrate, nitrate or tartrate.

Pref. (II) is NaOAc, KOAc, Na_2CO_3, or K_2CO_3. Pref. wrappers contain $\nless$ 35% MgO (or $Mg(OH)_2$) and $\nless$ 2% (II).

The MgO-(II) combination significantly reduces visible sidestream smoke that emanates during static burning from smoking articles, but does not adversely affect the smoking characteristics of the articles. 3.8.78 as 937936(5pp)

MONS D18 33877 T/21 =US 4232-130
Cigarette filter - contg an extruded element of expanded open celled thermoplastic resin
MONSANTO CHEMICALS 16.04.71-GB-009646 (18.11.70-GB-054806)
*A32 P15 (A17 A88) (04.11.80) *BE-775-476 +C08j-09*

A foam prod. comprises polypropylene or high density polyethylene in an open-cell structure. The majority of the cells have a dia. 40-1000 μ, such that > 0.5 of the cell walls present contain > 1 perforation.

The microstructure of the foam has fibre elements which bridge across the perforations of the cell wall. Pref. the fibre elements have thickness 0.1-2.0μ, and the perforations take up 70-95% of the total area of the cell wall to yield a reticular structure formed by the boundaries between the remaining parts of the cell wall.

The foam prod. is esp. used in cigarette filters, but may also be used as filters in air conditioning, central heating, mining, oil or water filtration. 22.12.75 as 643287 Div. ex 8-7-74as 486549 (c.i.p. of 29.10.71 as 195790)(29.10.71, 8.7.74 - US - 193790, 486549)(12pp931)

NEWM/ ★ D18 C/47 ★ZA 7905-809
Appts. for shearing, crutching and wigging sheep - comprises table onto which sheep is secured and which is adjustable to lower and upper positions
NEWMAN F J 17.11.78-AU-006826
(09.09.80) C14b

Appts. for shearing, crutching and wigging sheep comprises a sheep supporting table, means for securing a sheep to the table, and means for moving the table between a first, low position at which a sheep may be secured to the table and a second, raised position at a height convenient for shearing or other operations to be performed on the sheep.

Pref. the means for moving the table is in the form of ≥ 1 air cylinder located underneath the table and connected thereto. The or each air cylinder may be arranged to be connected to a common air supply for an air actuated shearing hand piece. 30.10.79. as 005809 (11pp).

See Also
D13 US 4231940 D13 US 4232156

D2: DISINFECTANTS; DETERGENTS

D21 : DENTAL; TOILET PREPARATIONS

OREA ★ D21 82639 C/47 ★BE -883-107
Modifying cosmetic oils by grafting with specified hydrophilic monomer - by heating in presence of initiator then purifying
L'OREAL SA 04.05.79-FR-011273
A96 (A14) (05.11.80) A61k C11c

Process comprises heating the oil under an inert atmosphere in the presence of a free radical generator initiator with a homopolymerisable hydrophilic monomer selected from N-vinyl pyrrolidene, 2-hydroxyethyl acrylate or methacrylate, acrylamide, methacrylamide, N-hydroxyethylacrylamide, N-(carboxyhydroxy)methacrylamide, acrylic and methacrylic acids, 2- and 4- vinyl pyridine and a monomer of formula (I) $CH_2=C(R)-CO-Y-(CH_2)_n-N(R')(R')$ in which R is H or methyl, Y is O or NH, R' is methyl or ethyl and n is 2 or 3. The treated oil is then purified to remove ungrafted monomer.

Treatment improves the oil properties such as their emollient and emulsifying properties without affecting their stability. 5.5.80 as 883107 (23pp597).

DAZE/ ★ D21 C/47 ★BR 7901-405
Cotton wool with acetone in disposable package for individual use
DE AZEVEDO J B B 02.03.79-BR-001405
P34 (07.10.80) A61r-07/04

JOHJ ★ D21 82674 C/47 ★CA 1088-428
Non-chilling dry powder deodorant spray - contg. finely powdered sodium bi:carbonate and organo:polysiloxane
JOHNSON & JOHNSON 24.02.76-US-660735
A96 E34 (28.10.80) A61k-07/32

An aerosol deodorant prod. comprises 4-12 wt. % sodium bicarbonate of particle size < 74 microns, a liquid organopolysiloxane (I), a suitable propellant, and opt. a minor amt. of fragrance. The wt. ratio of sodium bicarbonate to (I) is 9:1-1:9. This mixt. is dispensed from a single compartment container having a dip tube of inner dia. 0.02-0.10 ins., a valve body opening having dia. 3-5% greater than the dip tube, and an orifice of dia. 0.02-0.04 ins.

The compsn. does not chill or feel wet on application. It is free of astringent metal salts. Uneven distribution valve clogging and excessive fogging are avoided, without the use of fillers e.g. starch or talc. 23.2.77 as 272428 (21pp955).

ARH/ ★ D21 82821 C/47 ★DT 2919-283

ermatological steam ozone appliance - with steam dome and eheated pipe to steam nozzle eliminating condensation burns

BAR H 12.05.79-DT-919283

E36 P33 (13.11.80) A61h-33/06

n a cosmetic appliance for a dermatological treatment by jet of steam and ozone, the steam pipe terminates in a team dome, and a smaller-dia. steam pipe is passed from the dome across the steam pipe to a nozzle to produce a steam jet. All these parts lie inside an ozone chamber and the steam jet is directed on a mixing nozzle where it is mixed with ozone.

The provision of a steam dome and the passage of the small-dia. pipe to the steam nozzle across the live steam eliminates any condensate particles which could be ejected and cause burns on the skin. 12.5.79 as 919283 (12pp39).

IWAT- ★ D21 82938 C/47 ★EP --18-450

Melting and casting small metallic charges - using crucible superimposed on mould so that molten metal flows under gravity into mould

IWATANI SANGYO KK 25.04.79-EP-300705

M22 P32 P53 (12.11.80) A61c-13/20 B22d-25/02 B22d-27/15

D/S: E(DT, FR, GB, IT, NL).

Metal casting appts. includes a metal heating crucible located above a mould with an interconnecting passageway. An electrode is located over the crucible for producing an electric arc between the electrode and metal in the crucible and melt the metal from its top to its bottom. The molten metal drops into the mould through the passageway under gravity.

Melting and casting small charges of metal, e.g. for prodn. of dental inlays, precision machine parts and jewellery.

The bottom portion of the metal provides a plug in the pouring path until it is melted itself. The molten metal is dispensed automatically under gravity.

25.4.79 as 300705 (23pp1044).

(E)ISR: FR2213123; DS2553807; FR2025176; DS1116870; FR1076658; CH-384783.

KASI/ D21 09269 C/06 =EP --18-668

Depilatory compsn. which does not cause allergic reactions - contains sugar, gum arabic, weak acid, e.g. citric or tartaric, and water

KASIDECIOGLU E 08.05.79-DT-918422

*E17 (12.11.80) *DS2918-422 A61k-07/15*

D/S: E(BE, CH, FL, FR, GB, IT, LU, NL, OE, SW).

Depilatory mixt. contains, by wt., 100 parts sugar, 18-20 parts water, 2-6 parts gum arabic and 0.2-0.4 parts citric, tartaric or other non-toxic acid.

The compsn. requires no drying in use, is non-toxic, non-allergenic, is easily applied and achieves complete unwanted hair removal.

8.5.80 as 102529 (5pp200).

(G) ISR:

UNIL ★ D21 83027 C/47 ★EP --18-717

Aq. shampoo providing good conditioning effects - comprising a sulphate detergent, poly:galactomannan gum cationic deriv. and anionic additive (NO 20.10.80)

UNILEVER NV 27.03.79-GB-010636

A96 E19 (12.11.80) A61k-07

Full Patentees: Unilever Ltd. (GB); Unilever NV.

D/S: E(BE, CH, DT, FR, GB, IT, NL, OE, SW).

An aq. shampoo comprises 5-30 wt.% (a) an alkyl sulphate or alkyl ether sulphate detergent; 0.05-2 wt.% (b) a cationic deriv. of a polygalactomannan gum; and 0.1-3 wt.% (c) an anionic additive comprising at least one of (1) $R(OCH_2CH_2)_nCOOM$, (2) $ROSO_3M$ and (3) $R(OCH_2CH_2)_nOP(=O)(OM)_2$ and/or $R(OCH_2CH_2)_nOP(=O)(OM)O(CH_2CH_2O)_nR$, where R is 8-22C hydrocarbyl; n = 0 or 1-10; and M is H, alkali metal, ammonium or amine salt-forming gp.; provided that when (c) is (2), (a) is an alkyl ether sulphate.

(c) enhances deposition of (b) on to the hair. (b) imparts hair conditioning benefits such as ease of combing.

26.3.80 as 300940 (21pp558).

(E) ISR: US4061602; FR2162025; FR2370090; GB2027047; US3990991; US3808329; 1 Journal reference.

ARSE- ★ D21 83125 C/47 ★FR 2447-681

Pyrethrin-type insecticidal lotion - for application to skin, etc., contains lavender or citronella oil, poly:ol fatty acid ester

ARSENE VALERE 31.01.79-FR-002445

A92 B05 C03 (03.10.80) A01n-09/08 A01n-17/10 A61k-07/40

Insecticidal compsn. used in the form of a lotion contains 0.3-3 wt.% of pyrethrin or its derivs., 0.1-5 wt.% of lavender or citronella oil, 1-25 wt.% of an ester of a fatty acid and a polyol, 1-80 wt.% water and 10-80 wt.% of 95° ethanol. The compsn. may be placed in a PVC-type container and applied via a mechanical pump or as an aerosol.

Effective against lice, fleas, flies, mosquitos, etc. and has a pleasant odour and low toxicity. The compsn. may be applied to hair or fur of animals and avoids repeated washing with insecticidal shampoos (esp. useful in the case of pups, kittens, etc.). 31.1.79 as 002445 (5pp395).

PROC D21 77546 Y/44 =GB 1572-116

Antiperspirant cream resisting syneresis - contg. emollient, a clay, astringent and gelling agent

PROCTER & GAMBLE CO 29.04.76-US-681319

*A96 E33 (E19) (23.07.80) *BE-854-048 A61k-07/32*

An anhydrous antiperspirant compsn. comprises 30.0-60.0 wt.% of an liq. organic emollient material, 3.0-9.0 wt.% of an inorganic clay suspending/thickening agent, 1.0-3.0 wt.% of a gel-promoting agent and 20.0-45 wt.% of a solid impalpable particulate astringent antisperspirant material suspended throughout the compsn..

The clay suspending/thickening agent is suitable for forming a thixotropic cream in admixture with the emollient, and the gel-promoting agent is a 1-5C alkanol, acetone or propylene carbonate.

The prod. is prepd. in the form of a cream which is resistant to synersis. The cream does not dry out and does not form unacceptable crusts upon prolonged exposure to the atmos.. 28.4.77 as 017811 (7pp931).

BEEC ★ D21 83175 C/47 ★GB 1572-164

Dental polishing paste - contg. powdered calcium carbonate and mono fluorophosphate salt

BEECHAM GROUP LTD 25.03.76-GB-011995

B06 E33 (E34 E35) (23.07.80) A61k-07/18

A dental polishing paste for use by dentists contains 50-80 wt.% $CaCO_3$ powder having wt. median dia. of 10-50u, an ionic monofluorophosphate, and an orally acceptable carrier. $CaCO_3$ removes stained pellicle from tooth enamel without abrading the enamel, as it is softer than the abrasives normally used.

The compsn. contains 60-70 wt.% $CaCO_3$, and up to 2 wt.% pref. 1 wt.% monofluorophosphate, which is esp. an alkali metal or ammonium salt. An alkali metal, ammonium or stannous fluoride is opt. present, in amts. sufficient to provide 40-80% of the total F. 25.3.77 (2pp).

KUKI- D21 42218 A/24 =GB 1579-401

Water soluble tablet for cleaning dentures - contg. sulphamic acid with other specified ingredients with rapid cleaning time

KUKIDENT RICHARDSON 23.12.76-DT-658450

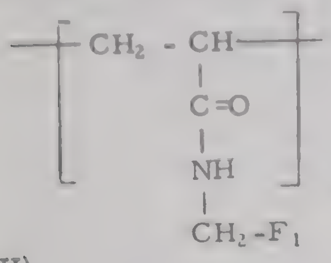
*A96 E36 (E16) (19.11.80) *BE-861-767 C11d-01/16 C11d-03/34 C11d-10/02*

A self-acting denture cleanser with a pH of 6.3 - 6.5 as a 1% aq. soln. comprises a non-ionic fluorochemical surfactant and amidosulphonic acid with pref. dialkylthiourea and ethylene diaminetetra acetic acid. The compsns' total cleansing time is 3 - 5 minutes with a decomposition time of 1 - 2 mins.

The cleanser is used in tablet or pulverent form. 14.11.77 as 047377 (6pp937).

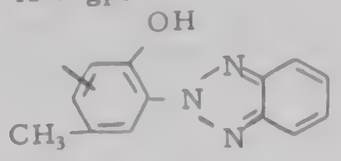
OREA D21 82954 Y/47 =GB 1579-647
Polymers absorbing ultraviolet radiation - for use in cosmetic compsns. giving protection from the sun
L'OREAL SA 29.07.76-FR-023174
*A96 (A14) (19.11.80) *BE-854-748 A61k-07/42 C08f-20/60 + C07d-235/04 C07d-251/72*

Polymer (I) comprises ≥1 unit of formula (II) where F_1 is a gp. A or B.

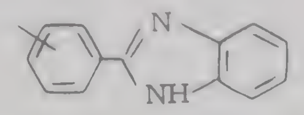


$$-\!\left[CH_2 - \underset{\substack{|\\ C=O\\ |\\ NH\\ |\\ CH_2-F_1}}{CH}\right]\!-$$

(II)



(A)



(B)

Pref. (I) has no. ave. mole wt. 2000-1000,000 and is a copolymer comprising units derived from N-vinyl-pyrrolidone, N-methacryloyl D-gulcoxamine, dimethylaminoethyl methacrylate, stearyl methacrylate, stearyl methacrylate, stearyl acrylate and vinyl stearate. Pref. (I) contains 15-100 (esp. 20-80) wt.% (II).

(I) absorb radiations of the erythernatous zone (280-315 nm) also radiations responsible for bronzing (< 350 nm) and therefore give good protection against sunburn and the effect of UV rays. (I) are used in an amt. of 0.2-20% in aq. (-alcoholic) soln., oil, gel, cream, milk or aerosol. 19.5.77 as 021228 Add to 1407670 (6pp918)

TOWA- ★ D21 83281 C/47 ★J5 5129-049
Resin jacket dental cover mfr. - by covering tooth mould with release agent, then with tooth cover-repairing resin compsn. contg. a monomer and a high mol. acrylic resin, p
TOWA GIKEN KK 29.03.79-JA-036262
A96 P32 (06.10.80) A61c-05/10 A61c-13

Mfr. of a resin jacket dental cover is claimed in which a tooth mould is coated with a releasing agent, e.g. a water soluble polymer, PTV-silicone rubber, or an urethane resin, then covered with a tooth cover-repairing resin consisting of a monomer and a high molecular polymer, e.g. methyl(meth)acrylate, ethyl (meth)acrylate, hydroxyethyl(meth)acrylate, ethyleneglycol (meth)acrylate, etc., to form an opaque layer having a thickness of 0.3-1.0mm by polymerisation, the tooth cover-repairing resin contg. an inorganic or organic filler and a peroxide catalyst, and lastly covered with a dentine layer and an enamel layer. Afterwards, the moulding formed on the tooth mould is removed and further polymerised by heating, followed by an operation for correcting the shape of the tooth cover thus mfd.

Method can mfr. a resin jacket dental cover having excellent stability and durability at lower cost and simply without theuse of expensive materials such as platinum, palladium, etc. 29.3.79 as 036262 (4pp117)

LOIR- ★ D21 83317 C/47 ★J5 5129-140
Emulsifying compsn. suitable for cosmetic use - comprising N-long chain acyl acidic aminoacid or salt and a sterol cpd.
LOIRE KESHOHIN KK 27.03.79-JA-035984
(06.10.80) A61k-07 A61k-47 B01f-17

An emulsifying compsn. is claimed capable of emulsifying very easily and accurately oily components, exhibiting very excellent emulsion stability and very mild action against the human skin, suitable fur use in the prodn. of cosmetics, e.g. cream and lotion etc. Compsn. consists of 20-1 pts. wt. N-long chained acyl acidic amino acid and/or its salt, e.g. composed of residue of glutamic acid or aspartic acid and fatty acid residue having 8-40C and 1-20 pts.wt. of sterol cpd., e.g. Cholesterol etc. Opt. antiseptic, moisture-holding agent, viscosity-increasing agent, sterilising agent, U.V.-absorbing agent, pigment, perfume and other additives to obtain cream, lotion or medical ointment etc. may be added.

In an example, 20.0 wt.% fluid paraffin and 2.0 wt.% of cholesterol are mixed together under heating on water bath (80°C) after which 1.0 pts.wt. N-acyl (12-18C) fatty acid-Na glutamate is added. 77.0 wt.% of hot water (heated at 80°C) is added to the mixt., and stirred for 5 mins. at 80°C so as to be uniformly emulsified. 27.3.79 as 035984 (6pp34)

LOIR- ★ D21 83318 C/47 ★J5 5129-141
Emulsifying compsn. suitable for cosmetic use - comprising N-long chain acyl acidic aminoacid or its salts, and ester of polyvalent alcohol and long chain fatty acid
LOIRE KESHOHIN KK 27.03.79-JA-035985
(06.10.80) A61k-07 A61k-47 B01f-17

An emulsifying compsn. is claimed exhibiting very excellent emulsion stability and very mild action on the human skin, capable of emulsifying very easily and accurately oil components, suitable for use in prod. of cosmetics, e.g. cream and lotion etc. Compsn. consist of 20-1 pts. wt. of N-long chain acyl acidic amino acid and/or its salt, e.g. composed of residue of glutamic acid or aspartic acid and fatty acid residue having 8-40C, and 1-20 pts.wt. of ester of polyvalent alcohol, e.g. polyglycerin, pentaerythritol, sorbitol, sorbitan, mannitol and sucrose etc. and fatty acid having 8-40C, e.g. capric acid, palmitic acid, stearic acid, oleic acid, hydroxystearic acid etc.

In an example, 0.5 wt.% of N-acyl 12-18C fatty acid-Na glutamate is added to a mixt. (80°C) comprising 20.0 wt.% fluid paraffin and 4.0 wt.% sorbitan monostearate, after which 75.5 wt.% hot water (80°C) is added to the mixt., and stirred for 5 mins. at 80°C so as to be uniformly emulsified 27.3.79 as 035985 (6pp34)

KANE ★ D21 83346 C/47 ★J5 5129-214
Acidic emulsified cosmetic prepn. - by mixing higher alcohol polyoxyethylene ether higher fatty acid and oil substance melting and mixing with aq. alkali metal hydroxide
KANEBO KK 28.03.79-JA-037626
A96 (06.10.80) A61k-07

The cosmetic is prepared by (a) mixing 0.5-5.0 wt.% higher alcohol-polyoxyethylene-ether $R-O-(CH\ CH\ O)_nH$ (I). 1.0-10.0 wt.% higher fatty acid and the oily substance free of free carboxyl group, (b) heat-melting the mixture and (c) mixing with aq. solution contg. containing alkali metal hydroxide (0.1-0.4 mol per 1 mol of the higher fatty acid) and the higher alcohol-sulphuric acid ester salt.

In (I) R is 12-22C alkyl alkenyl group and n = 5-20. The cosmetic is slightly acidic [(pH 4.8-6.5 (5.2-6.2)] and show good appearance. It does not suffer from the change in pH, viscosity and hardness during storage and gives good humidity-holding effect and good affinity to skin. It can be used in the form of skin cream, hair cream foundation cream, massage cream, cleansing cream. 28.3.79 as 037626 (7pp5)

LIOC ★ D21 83347 C/47 ★J5 5129-215
Oral compsns. e.g. tooth-paste - contg., as discolouration suppressing agent, poly:carboxylic acid and/or chalcone cpd.
LION DENTIFRICE KK 27.03.79-JA-035939
E19 (06.10.80) A61k-07/16

Oral compsn. comprises (a) a cpd. contg. ammonia molecule, prim. amine gp., sec. amine gp., tert. amine gr. or quat. amine gp. and Fe ion; and (b) polycarboxylic acid and/or chalcone cpd. as the discoloration-suppressing agent.

The oral composition containing the (a) and the iron ions contaminated from its materials and/or during processing tends to brown discolouration during its storage. The discolouration is further promoted either by the presence of >70 ppm Fe or by the presence of mint-perfume e.g. spear-mint, peppermint, etc. Practically it is difficult to prevent the contamination by Fe. This discolouration is now prevented. 27.3.79 as 035939 (4pp5)

SHIS ★ D21 83626 C/47 ★J5 5130-906
Poly:ionic complex cosmetic - obtd. by reacting synthetic or natural anionic high molecular salt with poly:cation or cationic activator
SHISEIDO KK 30.03.79-JA-037832
A96 (11.10.80) A61k-07

Cosmetic contains the polyion complex obtd. by reacting synthetic or natural anionic high molecular salt with polyion or cationic activator. The polyion complex serves excellent viscosity-increasing agent, and shows excell- preventive effect for the make-up disorder caused from n water, tears, sweat, physical actions, etc.

A synthetic or natural anionic high molecular salt, Na t K salt or ammonium salt of polyglucuronic acid, ИC, polyacrylic acid, cellulose-sulphuric acid, etc. can used. As polycation, polydiallyldimethylammonium-loride, polyethyleneimine, etc. can be used and as tionic activator 12-22C monoalkyltrimethylammonium-loride, monoalkyldimethylamonoaromaticammonium-loride, monoalkyl-diaromaticmethylammoniumchloride, c. can be used. By combining them properly the polyion mplex showing various solubility can be prepd.).3.79 as 037832 (6pp5)

J ★ D21 83627 C/47 ★J5 5130-907

e liner compsn. - contg. resin latex prepd. from vinyl monomer ntg. polar gp. and (meth)acrylic acid alkyl ester

TEIJIN KK 02.04.79-JA-038318

A96 (A14) (11.10.80) A61k-07/03

ye liner contains resin latex and colorant as essential gredients and is characterised by using a copolymer pd. mainly from (a) ≥ 1 polymerisable vinyl monomer ving polar group intramolecularly and (b) ≥1 kind of the onomer selected from acrylic acid-alkylester and/or ethacrylic acid-alkylester, as the resin latex.

Conventional eye liners have has defects in writing operties, adhesive properties, water-resisting propert-s, etc. and often tend to run. This eye liner is free of ch defects and has good adhesive properties etc. .4.79 as 038318 (7pp5)

OWC D21 80531 T/51 =J8 0042-065

olour-stabilised alkanolamines - contg alkali(ne earth) borates or kanolamine borate esters

DOW CHEMICAL CO 24.05.71-US-146489

*E16 (28.10.80) *DT2225-015 C07c-89/04 C07c-91/04*

iscolouration of alkanolamines on storage is inhibited by ldn. of alkali(ne earth) metal borates, or alkanolamine ters of boric acid. Pref. borate inhibitors are the metal lts esp. Na and K borates in amts. up to 4 wt % (usually 004-0.02) wt % of the alkanolamine. Discolouration of the lkanolamines on storage esp. in contact with iron or steel hich makes them unsuitable for certain purposes is pre-nted. 25.5.72 as 050826 (clg.24.5.71-US-146489) C07c-/04, 89/04 (28.10.80) DOW CHEM.CO.(4pp)(J48000511)

AL= ★ D21 83876 C/47 ★SU -727-196

rfumed bath salts compsn. - contains carbonate, bi:carbonate, taric acid, sodium chloride, fluorescein, polyethylene-glycol and lourant, to increase foaming and re

URALS VNIIKHIMPROEK 08.08.78-SU-660237

A96 E34 (E14 E17) (25.04.80) A61k-07/50

ath-salts compsn contg. Na_2CO_3, $NaHCO_3$, tartaric acid d aromatic cpd gives increased foaming and lower tox-ity by addn of NaCl, fluorescene, polyethylene-glycol d colourant to give proposed compsn(in wt. %):Na_2CO_3 10, $NaHCO_3$ 50-52, tartaric acid 10-11, polyethylene-ycol(e.g. mark 115) 2-3, perfume 0.15-0.3, colourant 025-0.03;fjuorescene 0.0125-0.013; NaCl to 100. The mpsn is prepd by simple mixing. A proposed dosage of 0g per bath gives toning-up, destruction of perspiration lour and freshens and perfumes the skin.

achulenko, L. N., Gavrilova, G. P., Divakova, N. A. et al l. 14/15.4.80.8.8.78.as660237(2pp114).

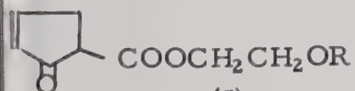
DI= ★ D21 84047 C/47 ★SU -727-626

koxy-ethyl cyclopentanone-carboxylate - prepd. from corresp. hyl ester by ester exchange, used as repellent against blood-cking insects

MED PARASITOLOGY 12.09.78-SU-662539

B05 (15.04.80) A61k-31/18 C07c-69/74

koxyethyl cyclopentanone-2-carboxylate of formula (I) (where R is Me or Et) is used as repellent against blood-sucking insects.



(I)

It is prepd by ester exchange from ethyl ester of cyclopentanone-2-carboxylic. This cpd. is described as new.

In an example a mixt of 0.41 mole ethyl cyclopentanone-2-carboxylate and 1.4 mole monomethyl ether of ethylene glycol is boiled 5-5.5 hrs with removal of ethanol. After driving away excess monomethyl ether of ethyleneglycol vacuum distn gives 87% yield of methoxyethylcyclopentanone-2-carboxylate(b. pt. 111-115°C/2mm Hg).

The prod. has toxicity LD_{50} 8.1 g/kg for white mice and activity similar to that of dimethylphthalate.

Tsizin, Yu. S., Kornienko, N. I., Potapov, A. A., et al Bul. 14/15.4.80.12.9.78. as662539(2pp114).

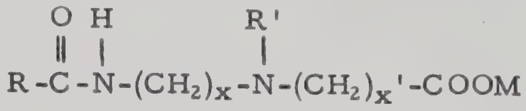
JOHJ D21 80843 B/45 =US 4231-903

Detergent and cleaning compsns. esp. shampoos - contg. phospho:betaine(s) or phosphitaine(s) and a specified amphoteric cpd.

JOHNSON & JOHNSON 30.11.78-US-965460

*A97 E11 (D25) (04.11.80) *BE-876-056 C11d-03/36 +C11d-07/36*

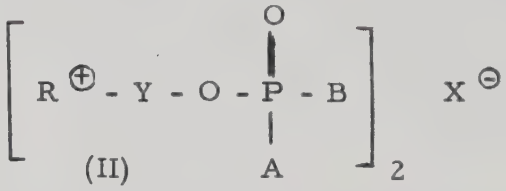
A detergent and cleansing compsn. comprises 1-20 wt.% of an amphoteric surfactant of formula (I), and 1-20 wt.% of a phosphobetaine or phosphitaine, such that they are present in amt. ≤ 35 wt.% w.r.t. the compsn.



$$R-\overset{\overset{O}{\|}}{C}-\overset{\overset{H}{|}}{N}-(CH_2)_x-\overset{\overset{R'}{|}}{N}-(CH_2)_{x'}-COOM$$

(I)

In the formula, R is ≥1 8-18C alkyl gp., R is a 2-4C hydroxyalkyl or CH_2OCH_2COOM, x and x' are 1-5, and M is H or an alkali metal. The phosphobetaine has formula (II), (where A is O^-, OM or $OYR^{\oplus}$, B is O^- or OM', $X^{\ominus}$ is an anion and Z is 0-2, such that either, but nc both A or B is O^-, and Z produces a charge balance. R is an amido-amine reactant moiety.



$$\left[R^{\oplus}-Y-O-\underset{\underset{A}{|}}{\overset{\overset{O}{\|}}{P}}-B\right]_2 X^{\ominus}$$

(II)

The detergent compsn. has improved non- or low irritating properties, and exhibit good foaming. 30.11.78 as 965460 (6pp931)

UNIL D21 66591 B/37 =US 4231-904

Toilet soap bar based on acyl isethionate - contains ethoxylated sorbitan ester to increase slipperiness

LEVER BROTHERS CO 01.03.78-GB-008079

*A96 E17 (A25 E14) (04.11.80) *DT2907-792 C11d-01/28 C11d-17*

A detergent bar contains 20-70 (30-60) wt.% of water soluble salts of acyl 8-22C isethionates, and ethoxylated (1-30 (4-20) units) sorbitan ester having 12-22 (16-18)C in an amt. of pref. 5-30 and esp. 10-25 wt.%.

The bar's slip characteristics are greatly enhanced. The bar has a mild action on skin. 26.2.79 as 015496(3pp)

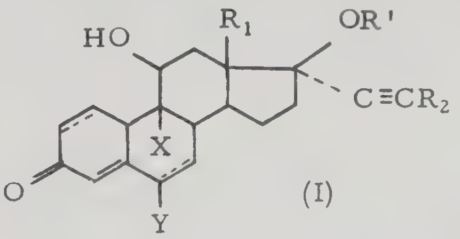
ROUS D21 14738 C/09 =US 4232-015

11-Hydroxy-17-alpha alkynyl-17-beta acyloxy steroid derivs. - useful as topical antiinflammatories

ROUSSEL UCLAF 16.08.78-FR-023851

*B01 (04.11.80) *BE-878-256 C07j-01*

Novel antiinflammatory Δ^4-androstenes are of formula (I).



(I)

R_1 is 1-3C alkyl. R' is an acyl of a 1-18C carboxylic or carbonic acid. R_2 is 1-12C alkyl, 2-12C alken-yl, CF_3, 6-12C aryl or 7-12C aralkyl. Y is H, F or CH_3. X is H, Cl, Br or F. The ring dotted lines are optional double bonds. If R_1 is CH_3 and the B ring is satd. X is H if Y is H and X is not H if Y is F.

Pref. R' is an acyl of a carboxylic acid. Pref. R_1 is CH_3. Pref. the A ring has the double bond in the 1,2-position and the B ring is satd. 6.8.79 as 063939(9pp974)

D 21: DENTAL; TOILET PREPARATIONS-p. 32

FREU D21 60607 A/34 =US 4232-123

Water soluble keratin hydrolysate prodn. - by two stage hydrolysis of wool or hair with acid, and alkaline protease

FREUDENBERG, CARL FA (RUMO-) 11.02.77-DT-705669

*(04.11.80) *DT2705-669 C07g-07 +C12p-13/12 C12p-21/06 C14c-01*

A water-soluble hydrolysate of a keratinous starting material e.g. loose hair, loose wool, scales, nails, claws, hooves or horns is made by subjecting it to an acid treatment at pH ≤ 2 at > 80 °C to effect mild hydrolysis, then enzymatically degrading it in an aq. bath at 30-70 °C for 4-24 hrs.

The enzymatic step is effected in the presence of urea and an alkaline bacterial proteinase having an activity optimum at pH 9-13, the initial pH of the second step being effected at this pH. Pref. the enzymes present at the conclusion of the degradation are then inactivated.

The process is esp. used for working up hair wastes from the tannery or wool wastes in the textile industry, for possible use in the cosmetic field. 9.7.79 as 055963 (9.2.78 - US - 876239)(3pp931)

See Also

D13 US 4231940

D13 US 4232122

D22 EP--18558

D23 J8 0041678

D22: BANDAGES; DRESSINGS

NATL ★ D22 82659 C/47 ★BE-884-265

Copolymers of (meth)acrylic acid alkyl acrylate - and crosslinking agent, are useful absorption agents for aq. liquids

NL INDUSTRIES INC 11.07.79-US-056564

A14 (A96 A97) (03.11.80) B01j C08f C08l

Copolymers are made contg. (a) 15-50 wt.% of an olefinically unsatd. carboxylic acid, (b) 49.07-82wt.% of an alkyl acrylate with a 1-6C alkyl gp., and (c) 0.03-3.0wt.% of a cross linking agent, e.g. glycol di(meth)acrylates. Pref. (a) is (meth)acrylic acid and up to 8wt.% of the total olefinically unsatd. carboxylic acid may be of itaconic acid, maleic acid or maleic anhydride. Pref. (b) is 59.02-78wt.% (m)ethyl acrylate or n-butyl acrylate.

The polymers (esp. in the form of Na, K, Li or NH_4 salts) are water-insoluble, water-swellable materials with good absorption properties. After the absorption process, the materials are still dry to the touch. The polymers are useful e.g. in the prodn. of surgical and dental swabs, catamenial tampons, meat plates, mats, litters for small domestic animals etc. 10.7.80 as 884265 (43pp513).

KEND ★ D22 82662 C/47 ★BE-884-287

Clear mixts. of PVP and acrylic copolymers - form clear insoluble hydrogels on absorption of water

KENDALL CO 05.12.79-US-100375

A14 G02 (A82 A96) (03.11.80) B01j C08l

Polymer compsn. comprises an optically clear mixt. of (1) 40-98wt.% of a water-soluble N-vinyl-2-pyrrolidone polymer (PVP) with a mol. wt. of $\geq$ 10,000 and (2) 2-60 wt.% of a water-insoluble copolymer of (A) 50-90wt.% of a hydrophobic water-insoluble ethylenically unsaturated monomer, (B) 2-12wt.% of an ethylenically unsaturated monomer contg. an acid gp. and (C) 15-45wt.% of an ethylenically unsaturated hydrophilic monomer which is free from acid gps.

The compsns. are capable of absorbing more than 45% of their wt. of water at ambient temp. without dissolution, to give optically clear hydrogels. The prods. are useful e.g. in the prodn. of surgical swabs and wound dressings, as coatings on surgical sutures, catheters and implants, and soft contact lenses, as carriers for controlled release of drugs which can e.g. be implanted into the body, and as coatings on glass such as corneal protheses or as anti-mist coatings e.g. on motor car windscreens. 11.7.80 as 884287 (20pp513).

KIMB D22 33909 W/20 =DS 2460-712

Flexible absorbent sanitary pads with soft edges - using adhesive and a pattern of embossed lines to contain the pad in its covers

KIMBERLY CLARK CORP 20.12.73-US-426521

*A96 F04 P32 +P73 (13.11.80) *US3881-490 A61f-13/18*

Suction layer of cellulose fibres laid down by air, is bonded on one surface by an adhesive sprayed on flat, to a covering layer consisting of a fleece permeable by fluids. On the other, an adhesive distributed in a pattern of spaced out spots, is used to fix an impermeable ground material, and the laminate is stampled into elongated absorbant pads for feminine hygiene. Laminate is embossed with a pattern of lengthways running, for pref. undulating lines. In the zones compressed by the lines, the suction layer is bonded to itself by a water/latex mixt. In the zones along the edges of the pad between the points of intersection of the lines with the edge, the fibres of the suction layer are not bonded.

Design leaves the capillaries in the unbonded zones beneath the lines free to convey the fluids, and the open zones at the side edges between the cover and the ground material, facilitate the flushing away in a toilet, as is desirable in a disposable pad. 19.12.74 as 460712 (8pp).

KUBI D22 45267 C/26 =DS 2854-107

Inhibiting mould growth on calcium-contg. roof cover-plate - by incorporating cpd. releasing copper, tin, lead and/or zinc ions

KUBOTA KK 14.12.78-DT-854107

*E37 L02 P73 Q45 +P42 (13.11.80) *DT2854-107 C04b-41/32 E04d-01*

Roof tiles consists of a base layer of a Ca contg. hydraulic inorganic material, with strengthening fibres and an inorganic additive. A colouring material layer is formed on top of the first layer and/or a covering layer, which contains a fungus inhibitor $\geq$ 1 of the layers contains 0.01-10 wt.% of $\geq$ 1 Cu ions, Sn ions, Pb ions or Zn ions which are released from a material, which is pref. in particulate form. The ion releasing material is pref. in the form of embedded fibres.

Discolouring of the roofing tiles is prevented, without limiting the colour range of the tiles. 14.12.78 as 854107 (6pp1438).

AMSA ★ D22 82930 C/47 ★EP--16-887

Gas sterilisation for biocidal treatment of goods - using chamber evacuated to low pressure and partially pressurised again to sterilising temp. by steam

AMERICAN STERILISER CO 06.02.79-US-009818

P34 (15.10.80) A61l-02/20

D/S: E(DT, FR, GB, OE, SW).

An enclosed chamber is evacuated and vapour with heating and moisturising properties (e.g. steam) injected to raise the chamber pressure to a second subatmospheric level. This corresponds to a desired sterilisation temp., based on the relationship of pressure level and temp. of the condensable vapour. The chamber is held sealed for a preset period with the evacuation and vapour injection interrupted.

The sequence of evacuation and injection is repeated, the chamber being held sealed a preselected number of times, pref. at least twice more. Biocidal gas, pref. ethylene oxide, is then added together with a diluent gas whilst the chamber is otherwise sealed. This raises the chamber pressure to a desired superatmospheric pressure, the biocidal gas being held in the chamber for a period to complete sterilisation.

The sterilisation unit eliminates the need for humidity or temp. sensors in the goods load. Vapour injection is provided independent of rate control requirements, so that needle valves or other flow controllers can be eliminated.

4.12.79 as 303050.(25pp978).
E) ISR: DT1642160; DT1148704; US3954406;
JS4164538.

XCE D22 71732 B/40 =EP --18-386
Prefilling sterilisation of milk containers with bactericidal aerosol - produced by ultrasonic atomisation of liq. for entrainment in air current
EX-CELL-O CORP 16.05.78-US-906159
*P34 +P42 (D13) (12.11.80) *BE-876-292 A61m-11/06 B05b-13/02 B05b-17/06 +A61l-02/12*
D/S: E(DT, FR, GB, SW)

7.5.79 as 900581 (WP 7901074)

ARH D22 80987 C/46 =EP --18-492
Aq. quat. ammonium disinfectant solns. - contg. acidic ortho:phosphoric partial ester cpds. as synergists of bactericidal activity
HOECHST AG (KNAP) 23.04.79-DT-916318
*C03 E16 P11 (C01 E11) (12.11.80) *DT2916-318 A01n-57/12 +A01n-25/02 A01n-33/12*
D/S: E(BE, CH, DT, FR, GB, IT, LU, NL, OE, SW).

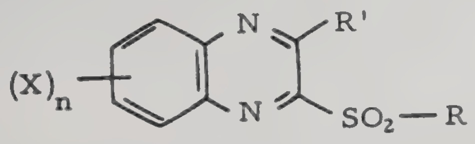
Aq. disinfectant solns., contg. a quat. ammonium cpd. (I) and opt. further additives with detergent action, additionally contain at least one acidic orthophosphoric acid partial ester (II).

Solns. are surface cleansing and disinfectant agents, e.g. for food processing or agricultural equipment or public facilities such as hospitals or swimming baths. The biocidal activity of (I) is increased or speeded by combination with (II).

21.3.80 as 101498 (15pp280).
(G) ISR: US3017278; CH-418532; US3326806; US3004056; US3004057; DT2645211; DT2134854; DS2114145; GB1415190.

FARB D22 75495 C/43 =EP --18-493
Halo-, nitro- or tri:fluoromethyl-substd. 2 sulphonyl-quinoxaline(s) - with antibacterial, antifungal and antiprotozoal activity prepd. by oxidn. of 2-mercapto quinoxaline cpds.
BAYER AG 05.04.79-DT-913728
*B02 C02 E13 (12.11.80) *DT2913-728 A61k-31/49 C07d-241/44*
D/S: E(BE, CH, DT, FR, GB, IT, NL, OE, SW).

2-Sulphonyl-quinoxaline derivs. of formula (I) are new:



(I)

(X is halogen, NO_2 or CF_3;
R' is H, 1-4C alkyl, cycloalkyl or opt. substd. phenyl;
R is alkyl, cycloalkyl, aralkyl or aryl; and
n is 1, 2, 3 or 4).

(I) have antimicrobial activity against human-pathogenic fungi and Gram-positive and -negative bacteria, as well as against moulds, trichomonads, lamblia, amoebae and histomonads. They may be used in human and veterinary medicine against dermatomycoses, systemic mycoses, bacterial infections, and trichomoniasis, giardiasis and amoebiasis. (I) may also be used as preservatives for organic and inorganic materials, foods, cosmetics and water.

22.3.80 as 101525 (41pp280).
(G) ISR: DT2312730; GB1293850; 2 Journal References.

MERE D22 81076 C/46 =EP --18-496
Surgical suture network used for healing bone defects - contains opt. resorbable polymer and other threads having specified thickness
MERCK PATENT GMBH 28.04.79-DT-917446
*A96 P32 +P31 P34 (12.11.80) *DT2917-446 A61f-01 +A61b-17/18 A61l-17*
D/S: E(BE, CH, DT, FR, GB, IT, NL, OE, SW).

Surgical material consists of resorbable organic threads having thickness 50-300 and/or of non-resorbable threads having thickness 100-750 μ, forming a network having inside mesh width 1-10 mm.

Materials are used in healing bone defects, in implanting endoprostheses and in carrying out joint osteo-syntheses.

Material immediately improves flexibility, stabilises bone defects and also ensures high long-life stability. On resorption of material, the cavity system formed in bone cement has favourable dimensions for bone growth. Post-operative removal, if necessary, is helped by using non-resorbable material, esp. metallic, network layers.

26.3.80. as 101583. (20pp200).
(G) ISR: FR2088548; FR2409278; FR2278348; US4141087. US4064567; DT2827289; CH-495755; FR2361092; FR2394624.

HENK D22 77176 C/44 =EP --18-504
Antimicrobial use of aldehyde cpds. - produced by hydroformylation of cyclic olefin cpds. e.g. limonene in the presence of rhodium catalyst
HENKEL KG AUF AKTIEN 07.04.79-DT-914090
*C03 E17 (12.11.80) *DT2914-090 A01n-35/02 C11d-03/48 +C07c-45/50 C07c-47/11*
D/S: E(BE,CH,DT,FR,GB,IT,NL,OE,SW).

Use as antimicrobial active substances of aldehydes (I) obtd. by hydroformylation of 6-20C alicyclic hydrocarbons (II) contg. ≥1 double bond in the presence of rhodium catalysts is new.

(I) are cleansing, disinfectant and preservative agents for textiles, floors, and hospital equipment and instruments, and in dairies, breweries and laundries, in concns. of 0.1-25 (pref. 0.5-20) wt.%. (I) can also be used as preservatives for technical prods. which are subject to attack by fungi and bacteria, e.g. starch pastes, sizes, emulsion paints, and cutting and drilling oils, at 0.1-2% of the wt. of the material to be preserved. (I) are pleasant-smelling.

31.3.80 as 101702 (21pp280).
(G) ISR: US3787566; DT2113732; FR2130567: FR2371192; FR2310135; EP--11272; EP--11273; EP---8459; FR2224428; BE1939322; US3965192.

FARB D22 81062 C/46 =EP --18-558
Solvent-free polymerisation of unsatd. carboxylic acid - and opt. comonomer, on inert carrier powder, giving hydrophilic filler
BAYER AG 27.04.79-DT-917272
*A14 B04 C03 (D21) (12.11.80) *DT2917-272 +C08f-02/44 C08f-292 C09c-03/10*
D/S: E(DT, FR, GB, IT).

Polymers of olefinically unsatd. carboxylic acids are prepd., for use as a hydrophilic filler, by (a) mixing an inert powder carrier with the acid and opt. other ethylenically unsatd. monomers, and (b) polymerising the free-flowing mixt. with tadical initiators. Pref. the polymer is again charged with the monomers and polymerised further.

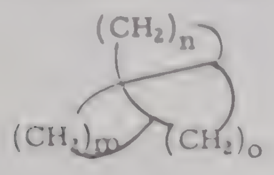
No solvent is used in the polymerisn.

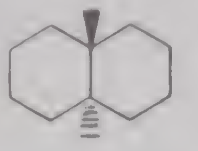
The prods. are used, esp. as NH_4 or alkali salts, as fillers for synthetic leather, in textile dressings, as dispersion aids and thickeners, as drying agents in cosmetics, foods, dyes and pigments, for increasing water absorption of bandages, nappies or straw for animal rearing, as soil improver, and in medicine.

18.4.80 as 102092 (10pp510).
(G) ISR:-

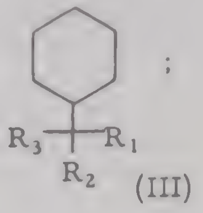
PROC ★ D22 83011 C/47 ★EP --18-679
Solid, water dispersible compsn. for toilet bowl dispensing - comprising organic sulphate or sulphonate and solubility reducing agent
PROCTER & GAMBLE CO 18.04.79-US-030976
E19 (12.11.80) C11d-01/12 C11d-03/18 C11d-17
D/S: E(BE,DT,FR,GB,IT,NL).

A solid, water-dispersible compsn. comprises 40-99.5% (A) an organic sulphate or sulphonate surfactant; 0-59.5% (B) opt. ingredients; and 0.5-20% (C) an organic solubility reducing agent,which reduces the solubility of (A) by pref. $\geqslant$ 5%,of formula RO_2CR' or RCO_2R' (R' is Me or Et; R is n-nonyl or a gp.


(I)


(II)

or


(III)

;

m is 2 or 3;
n is 1 or 2;
o is 1 or 2; and
R_{1-3} are each Me, Et or Pr).

In (I) and (II) a non-bridgehead site is attached to the remainder of the molecule. In (III) a ring posn. other than the 1-posn. is attached to the remainder of the molecule.

The compsn. has limited solubility and can be used to dispense a surfactant and opt. other ingredients into a toilet bowl upon flushing.
15.4.80 as 200337 (35pp558).
(E) ISR: US4119578; FR2285452; OE-297896.

PROC ★ D22 83015 C/47 ★EP --18-684
Plastic faced disposable absorbent fabric for diapers bandages etc. - has perforated nubbled top sheet to provide cloth like feel
PROCTER & GAMBLE CO 04.05.79-US-036253
P21 (12.11.80) A41b-13/02
D/S: E(BE, DT, FR, GB, IT, NL).

An absorbent layer of wadding or similar material is sandwiched between an impermeable backsheet and a permeable topsheet. This is formed from a thermoplastic film that has been perforated over its entire surface and bears microscopic nubbles dimensioned so as to provide a clothlike feel and to reduce gloss, leaving the macroscopic perforations substantially unchanged. Movement of the absorbent layer within the two plastic layers is prevented by an intermediate tissue film.

As disposable absorbent articles such as diapers, bandages, sheets etc., the cost and wear advantages of plastic are obtained while the unpleasant 'feel' of plastic is replaced by an aesthetically pleasing and desirable clothlike 'feel'.
22.04.80 as 200365 (26pp1451).
(E)ISR: FR2301186; US3645264; US3292619; US3929135.

BERT/ ★ D22 83130 C/47 ★FR 2447-713
Inflatable pressure bandage for promoting haemostasis - is in form of fir-tree with radiating branches and is applied to leg after stripping varicose veins
BERTHEAS M J 31.01.79-FR-003156
P31 P32 (03.10.80) A61b-17/12 A61f-13/06
Pressure bandage is used to promote haemostasis after the stripping of saphenous varicose veins. It is in the shape of a fir tree with a main longitudinal trunk and pairs of lateral branches extending perpendicularly from it.

Bandage is made from a double layer of welded synthetic material which is inflated to apply localised pressure to parts of the leg in the inflated condition the bandage has a V-shaped cross-section so as to conform more closely to the contour of the leg. 31.1.79 as 003156 (6pp).

BERT/ ★ D22 83131 C/47 ★FR 2447-716
Haemostasis tampon to follow extn. of varicose saphenous vein - has absorbent core of grass cloth in a porous plastic sleeve
BERTHEAS M J 31.01.79-FR-003157
P32 P34 (03.10.80) A61f-13/20 A61l-15
Flexible cord tampon is for haemostasis of a passage left in the leg of a patient by extn. of a varicose, saphenous vein. Cord comprises a central core of grass cloth, i.e. fibres of plants such as jute or hemp. Core is enclosed in a porous, tubular sleeve made of plastic thread in knitted construction.

Core is highly absorbent and undergoes slight volumetric shrinkage as it takes up moisture. This makes it much easier and less harmful to remove than cotton tampons which swell when wet. Clean, easy extn. is improved by the plastic sleeve from which threads do not become detached. 31.1.79 as 003157 (6pp448).

VERE D22 25324 Y/15 =GB 1579-269
Absorbent body with fibrous sheath contg. plastic particles - for sanitary towels, napkins, draw sheets, shoe soles, armpit sheaths etc.
VER PAPIERW SCHICKEDANZ 04.06.76-DT-625177
*A35 F07 P32 P73 +P21 P22 P34 (A96) (19.11.80) *BE-849-145 A61f-13 +D04h-01/62*
An absorbent hygienic pad has an inner zone of non-bonded hydrophilic fibres and an outer zone of the same fibres bonded with solid thermoplastic particles so that the outer zone is permeable to liquids but not to the inner zone fibres.

The outer zone pref. completely surrounds the inner, with some of its fibres extending into the inner zone and the particles concentration decreasing progressively from the outer surface of the pad. Alternatively, the outer zone may be only partly around the inner, with a liquid-impervious thermoplastics film around the remainder. The particles are pref. thermoplastics fibres. 1.6.77 as 023288 (6pp1358).

WALL- D22 08368 A/05 =GB 1579-425
Sterilisable package for surgical instrument etc. - has robust plastic filter element esp. of polyethylene to keep out bacteria and let out gas
WALLACE H G LTD 30.07.76-GB-031791
*A92 Q32 +P31 P34 Q34 (A96) (19.11.80) *BE-857-338 +A61l-02*
A sterilisable pack, particularly for a surgical device, includes a rigid container and a porous plastics filter at least as thick as the thinnest part of the rest of the pack. The filter is snap-fitted and held in a pack recess and allows passage of gases while preventing passage of bacteria.

The filter is pref. of porous polyethylene, 3 mm thick and is held in an end cap formed separately from the container body and with an integral retaining ring to hold the filter in a recess. The container is pref. at least partly transparent and of cellulosic acetate. 29.7.77 (4pp1358).

MINN D22 72792 Y/41 =GB 1579-431
Solid disinfectant and/or sterilising compsn. - generating chlorine dioxide in aq. soln. and contg. cpd. releasing chlorine, chlorite and buffer
MINNESOTA MINING CO 23.03.76-GB-011676
*E37 P34 (19.11.80) *DT2712-574 C01b-11/02*
Method of generating ClO_2 in an aq. liq. contg. an alkali(ne earth) metal chlorite comprises adding to the liq. a water-soluble solid contg. a cpd. which is stable when dry but releases Cl_2 when dissolved in water, the chlorine or chlorine species subsequently produced generating Cl_2 by reaction with the chlorite. Pref. the concn. of ClO_2 formed is 5-20 ppm.

Also claimed are water disinfecting or sterilising compsns. based on the above contg. a chlorine-releasing agent, the chlorite, a buffer and opt. a disiccant, effervescent reagents, disintegrant components, lubricant to assist release from tabletting machine, fillers etc..
22.3.77 (10pp963).

BADI D22 06406 A/04 =GB 1579-491
Tri:organo-tin derivs. of hydroxy-diazenium oxide(s) - for use as fungicides, esp. wood preservatives
BASF AG 24.07.76-DT-633452
*C01 E12 F09 +P63 (19.11.80) *BE-857-034 C07f-07/22 +A01n-59/16*
Triorganotin cpds. of a hydroxydiazonium oxide of formula (I): $(R)_3Sn\text{-}O\text{-}N{=}N(\rightarrow O)Y$ (where each R is independently 1-12C alkyl or phenyl and Y is alkyl or cycloalkyl) are novel and excellent fungicides having a better action than prior art trialkyltin cpds..

Prepn. of (I) comprises reacting $(R)_3SnX$ (where X is halogen) with the Na or K salt $K(Na)\text{-}O\text{-}N{=}N(\rightarrow O)Y$. A specific (I) is the tributyl tin cpd. of N-cyclohexyl hydroxydiazonium oxide. 22.7.77 as 030834 (5pp393).

NW ★ D22 83282 C/47 ★J5 5129-057
ermogenic adhesive sheet for healing skin - obtd. by laminating
eet contg. percutaneous absorbent and hot packing agent, metal-
ntg. thermogenic sheet and oxide-contg. sheet
SANWA KAGAKU KENKYUSHO 30.03.79-JA-036949
A96 P32 (06.10.80) A61f-07/02

ermogenic adhesive sheet is obtd. by laminating a skin
aling sheet, contg. a percutaneous absorbent, a hot-
cking agent, or magnetism generator, on a thermo-
nic sheet consisting of a metal (e.g. Fe)-contg. sheet
rmed on the one side of the skin-healing sheet and a
etal oxide (e.g. MnO_2)-contg. baggy sheet formed on the
her side of the sheet.

Sheet has skin-warming effect and skin-healing effect
ien applied to a damaged portion of a skin in a short time
thout causing any problems such as boils, etc., after
long period of application.

In an example, a percutaneous absorbent formulation
as prepd. by mixing 80g. of ointment base, an approp-
ate amt. of kaolin, and 20g. of a 10 fold-diluted nitro-
ycerine emulsion. Mixt. was used as an adhesive for
e skin-healing sheet. 30.3.79 as 036949 (4pp117)

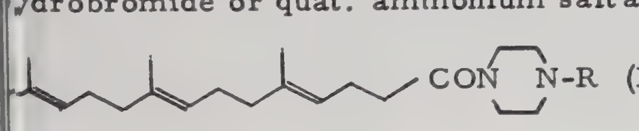
ASU/ ★ D22 83283 C/47 ★J5 5129-064
eodorant for treating animal droppings etc. - obtd by mixing
dium hydrogen carbonate, hydrated magnesium silicate,
agnesium aluminium meta silicate and surfactant
MASUDA M 24.03.79-JA-033808
*E33 P34 (E34) (06.10.80) A61l-09/**

deodorant for human wastes and animal droppings,
sed in stud farms, etc., is obtd. by mixing Na hydrogen
arbonate, hydrated Mg silicate, Mg Al metasilicate, and
surfactant. The deodorant has excellent duration of deo-
orisation effect as well as in deodorising activity for
nimal droppings in particular in stud farms, and also the
nimal droppings treated with the deodorant can be used
a fertiliser containing good effective components.

In an example, a deodorant was prepd. by mixing 59%
a hydrogen carbonate, 25% hydrated Mg silicate, 4% Mg
l metasilicate, 2% propylene glycol, 2% T-40, 2% CMC
% of an alcohol, and 4% water. 24.3.79 as 033808 (3pp117)

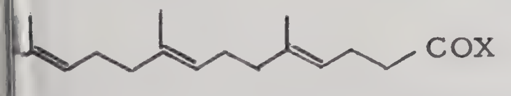
JRS ★ D22 83374 C/47 ★J5 5129-275
perazine-substd. farnesyl:acetic acid amide cpds. - having
ntimicrobial and antiulcer activities, useful as antiseptics,
sinfectants and surfactants
KURARAY KK 28.03.79-JA-037586
B03 E13 (06.10.80) A01n-43/60 A61k-31/49 C07d-295/18 C11d-03/48 C11d-09/50

arnesylacetic acid amide cpds. having a piperazine
ng of formula (I) or their salts, partic. hydrochloride,
drobromide or quat. ammonium salt are new.

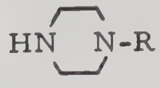


(I)

In (I) R is H,
(cyclo)alkyl,
alkenyl, (e.g.
vinyl, geranyl
or farnesyl),
ryl or arylalkyl (e.g. benzyl, phenylethyl or p-methyl-
enzyl). Prepn. comprises reacting farnesylacetic acid
eactive deriv.) of formula (II) with a piperazine cpd.
formula (III).



(II)



(III)

(II) X is gp. capable of forming amide upon reacting with
nino gp. such as OH, halogen or alkoxy.

(I) exhibit steong antimicrobial and antiulcer activities
nd are useful as antiseptics, disinfectants or digestive
ntiulcer agents. Salts of (I) have high affinity for water
nd organic substances and are useful as surfactants or
etting agents. 28.3.79 as 037586 (5pp140)

HIR/ ★ D22 83529 C/47 ★J5 5130-660
omach warming compsn. - comprises iron, zinc or other metal
owder, natural zeolite, water and porous material enclosed in air
ermeable bag
OHIRA A 30.03.79-JA-037113
G04 P32 (09.10.80) A61f-07/03

A simple chemical stomach-warmer is obtd. by enclosing a reductive metal powder, e.g. iron, zinc etc., and a natural zeolite composed primarily of alkali(ne earth) metal aluminosilicate as a reaction accelerator, together with a mixt. of a porous material with an appropriate amt. of water contg. a soluble salt in an air-permeable bag.

The warmer has excellent heating capability and its disposal does not present an environmental problem as it is made from natural materials. The compsn. may comprise 74.27% SiO_2, 12.68% Al_2O_3, 1.22% Fe_2O_3, 2.18% CaO, 0.45% MgO, 1.41% Na_2O, 0.01% MnO, 0.62% K_2O and have 5.34% ignition loss. Pref. soluble salt is NaCl in an amt. of 20-40% wt. of the water. 30.3.79 as 037113 (2pp117)

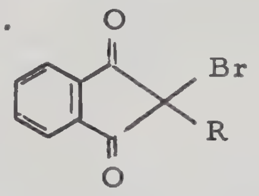
DAIC ★ D22 83530 C/47 ★J5 5130-662
Water-absorbing sanitary prod. mfr. - by combining hydrophilic resin compsn. with e.g. cloth or synthetic fibre
DAINICHISEIKA COLOR CHEM 29.03.79-JA-036256
A96 P21 P32 (09.10.80) A41b-13/02 A61f-13/18

Water.absorptive sanitary prod. is obtd. by combining a hydrophilic resin, or a compsn. contg. an hydrophilic resin (consisting of a block copolymer and/or graft copolymer having at least one (hard segment-hydrophilic segment -hard segment) bond, in which the hydrophilic segment is an anionic, a nonionic and/or a cationic hydrophilic gp. e.g. carboxyl, sulphone or a water-soluble salt of these; a primary, secondary, tertiary amine, or quaternary ammonium gp., or a water-soluble salt of these, or an alcoholic hydroxyl, ethers, or carboamide gp.) with a base material, e.g. a woven- or nonwoven cloth, a film, a bar, etc., made of cotton, pulp, regenerated fibre, synthetic fibre, or synthetic resin.

The prod. has high absorbability for human excrements, such as urine, sweat, etc. and blood and has excellent water retention and high strength. It can be used in mfr. of: diaper, physiological napkin, sweat absorber, water blotting material, etc. 29.3.79 as 036256 (7pp117)

TAKE ★ D22 83624 C/47 ★J5 5130-904
Industrial germicide compsn. with low toxicity - contains a 2-bromo-indan-1,3-di:one cpd.
TAKEDA CHEMICAL IND KK 29.03.79-JA-037786
E14 (11.10.80) A01n-41/10

Germicidal compsn. contains as active ingredient a cpd. of formula (I)



(I)

(where R is H, Br, NO_2, CN, lower alkoxycarbonyl, lower alkanoul, lower alkylthio, lower alkyl sulphinyl or lower alkyl sulphonyl).

Compsn. shows high germicidal activity and low toxicity to warm-blood animals. (I) is prepd. by bromination of the corresp. 1,3-indandione cpd. The bromination is conducted with the use of brominating agent such as Br_2, brominated pyridine, dioxane dibromide, N-bromoacetamide, etc. (I) is mixed with diluent, carrier, and other conventional additives, and can be used in solid or liquid form. 29.3.79 as 037786 (6pp22)

OKAM- D22 02999 Y/02 =J8 0042-184
Textile prods. with resistance to germs, mildew - contg. 2-(3,5-dimethyl 1-pyrazolyl) 4-phenyl 6 hydroxy pyrmidine which is resistant to removal by laundering
OKAMOTO KK 22.05.75-JA-061316
*E13 F06 (29.10.80) *J51137-000 D06m-13/38 +A01n-43/70*

The textile prod. is prepd.by treating with 2-(3, 5-dimethyl-1-pyrazolyl)-4-phenyl-6-hydroxypyrimidine (I) to effect adsorption of the latter by the former.

(I) is of very low toxicity (acute oral LD 50 for mice: approx.1000 mg/kg) and shows no skin irritation even at 5 wt % concn. (I) is effectively adsorbed by various kinds of fibres, without causing discolouring them, or adversely affecting their physical properties of the fibre. 22.5.75 as 061316, D06m-13/38, A01n-43/70, (29.10.80) OKAMOTO KK (2pp) (J51137000)

AMST- ★ D22 C/47 ★PT --71-137
Sterilising appts. control - uses magnetic memory storing several different sterilising programs and electrically operated magnetic reader
AMERICAN STERILIZER 05.06.79-US-045832
T06 (30.10.80) G05b

UCRY= ★ D22 83842 C/47 ★SU -726-393
Programmed freezing of biological objects - using signal smoothing system for programming unit, to stabilise freezing conditions
UKR CRYOG BIOL MEDI 01.04.77-SU-469635
X27 Q75 (10.04.80) F25d-03/10

The device is used for biological objects programmed freezing, specifically bone marrow, skin and organs, and it can be used for research and clinical purposes. It contains a freezing chamber, coolant supply system, measuring system with thermal detectors placed in the freezing chamber and in the biological object, a system of automatic regulation with a programming unit and an actuating element.

In order to improve storage stability of the biological objects by stabilising the freezing conditions, the device is provided with a system for smoothing the signals of the programming unit containing phase-sensitive amplifier, connected to a system of automatic control, switch cascades connected to the amplifier and also an electromagnetic valve. The latter is placed parallel to the actuating element.
Korolev, V. V., Kasiyan, V. G., Krasilnikov, V. A., et al
Bul. 13/5.4.80.1.4.77.as469635(3pp110).

ERLU- D22 47895 A/27 =SU -727-565
Control of microorganisms in stored hydrocarbon - using zinc cpds. as brine additives
FORSCH ERLUNDUNG FE (WAGN/) 17.06.76-DL-193409
*E32 H01 (15.04.80) *DL-130-983 +C02b-01/18*

The growth of microorganisms(esp halo-tolerant and halo philic microorganisms)in hydrocarbons stored in underground reservoirs and tanks is controlled by adding Zn cpds(esp $ZnCl_2$) to the brine used as drive fluid or sealant Pref effective concn of the Zn cpds is 50-500 ppm, depending on the salinity. Their effectiveness can be increased by increasing the salinity of the brine e.g. by adding NaCl, $MgCl_2$ etc.

Zn cpds are readily soluble inbrine, forming stable solns with corrosion inhibiting properties. They are active against a wide range of aerobic and anaerobic desulphurising bacteria, and their activity increases with increasing salinity.
Wagner, M., Leidt, K., Bul. 14/15.4.80.17.6.77.as494161 (2pp).

KONT/ ★ D22 C/47 ★SW 7902-983
Sterilisation unit for medical instruments - uses very short blast of high temperature air, also contains washing facility
KONT G 04.04.79-SW-002983
S05 Q77 (03.11.80) F27d-07/04

The medical equipment is decontaminated by a blast of hot air of >500°C being applied for a very short duration. A circulation fan employed provides 5 air renewals/sec, and a quick action valve is between it and the heater.

The container used also provides for washing as soon as the equipment is placed inside it, and the valve maintains the container sealed from the circulation system.
4.4.79 as 002983 (1pp1161).

TOKE- D22 41104 B/22 =US 4231-356
Surgical immobilising bandage of good mouldability - contains an aliphatic polyester e.g. poly:hexa:methylene adipate
TOKYO EIZAI LAB KK 17.11.77-JA-138244
*A96 +P32 (A23) (04.11.80) *GB2008-163 +A61f-13/04*

Surgical immobilising bandage, etc. comprises an elastic fabric impregnated with a compsn. contg. aliphatic polyester polymer(s) synthesised from aliphatic diols and satd. dicarboxylic acids. Pref. the compsn. also contains colourants and fillers.

Specific polymers are polyhexamethylene adipate and/or polyhexamethylene substrate, Prod. is easily mouldable, durable, lightweight, water resistant, x-ray transmittant, etc. 25.10.78 as 954467 (4pp982)

MOOC D22 47480 B/26 =US 4231-357
Dressing for high fluid secretion wounds - has foils enclosing wound and superposed gauze and interchangeable absorption body held by plaster
MO OCH DOMSJO AB 08.12.77-SW-013918
*P32 P34 (04.11.80) *EP---2-509 A61l-15*

Absorbent bandage for open wounds consists of at least two bandage-supporting base layer pieces surrounding the wound, a foraminous sheet attached to the base layer and bridging the wound, and an absorbent outer layer removably attached to the foraminous sheet. The absorbent layer has a region of material having a water absoptivity of at least 50 mm/10min (Klemm). A fluid pervious envelope encloses the absorbent material and forms a convex shape over the wound.

Fluid can be removed without disturbing the dressing.
4.12.78 as 965761 (6pp1376)

ATCH/ ★ D22 84083 C/47 ★US 4231-358
Light frame for draughtman's table - with straps extending from pad to leave opening for male genitals
ATCHISON C M 09.11.78-US-959319 (08.10.76-US-731042)
P32 (04.11.80) A61f-13

A dressing includes a pad with an absorbent layer, a support with one end integrally connected to the pad rear end, and a pair of straps each with its front end integrally connected to the pad front end at spaced points so that the straps and pad define an opening for passage of male genitalia or to leave the female urethral opening exposed.

Each strap has an absorbent layer on its pad end integral with the pad absorbent layer. The pad pref. also has a non-absorbent layer with the support and straps forming extensions of this. The support and strap free ends can pref. be secured to the body to hold the dressing in position. 9.11.78 as 959319 (4pp1358)

COLO- D22 89980 A/50 =US 4231-369
Non-irritating stoma bag sealing or closing material - is made of a block copolymer contg. styrene units and hydrocolloids dispersed in it (NL 28.11.78)
COLOPLAST INT A/S 24.05.77-GB-021767
*A96 P32 +P34 (A18) (04.11.80) *DT2822-535 A61f-05/44*

An ostomy system for covering intestinal and similar stomas in a human body, comprises an ostomy device surrounding or covering the stoma and attached to the body by a sealing.

As the sealing, a shaped gel-like compsn. is used comprising styrene-olefin-styrene block copolymers and ethylene-propylene block copolymers. The compsn. is formed into a continuous phase and ≥1 hydrocolloid selected from guar gum, pectin, NaCMC and/or Na polyacrylate is dispersed in it. The compsn. also contains a hydrocarbon tackifier.

The compsn. has a low resistance to deformation and a rapid recovery to its original shape. The seal between the ostomy device and the body, and between the stoma and the body exposable to discharge from the stoma are maintained intact, even under rapid body movement. 17.5.78 as 906549 (10pp982)

PROC ★ D22 84085 C/47 ★US 4231-370
Disposable diaper with wetness indicator - is pH sensitive indicator as solid in adhesive matrix
PROCTER & GAMBLE CO 18.06.79-US-050013
E14 P32 (04.11.80) A61f-13/16

A disposable diaper has a wetness indicator placed between an outer flexible translucent cover and a flexible member so it is visible from the outside and in contact with the absorbent. The indicator is flexible and changes colour with change of pH, and consists of a solid-solid mixt. of indicator material dispersed in a matrix of adhesive.

The indicator responds rapidly when the diaper is wetted with urine. The indicator does not bleed out of the compsn
18.6.79 as 050013 (8pp955)

XC ★ D22 84092 C/47 ★US 4231-426

abilised tracer fluids for sec. oil recovery - contg. aromatic cpd. as cctericide

TEXACO INC 09.05.79-US-037588

A97 E14 H01 Q49 (04.11.80) E21b-43/22 E21b-47

low conditions between wells in a subterranean formation e determined by injecting a predetermined amt. of an . liq. contg. a known concn. of a tracer. The improve- ent comprises reducing the rate of bacterial attack on e tracer by adding a bactericidal amt. of an aromatic od. (I) to the aq. liquid.

Addn. of (I) is esp. effective in inhibiting bacterial de- radation of nitrate and alcohol tracers used in sec. oil ecovery by surfactant or polymer flooding. 9.5.79 as 37588(6pp367)

EEF- ★ D22 84190 C/47 ★US 4231-905

as permeable, dimensionally stable contact lens material - obtd. polymerising a methyl methacrylate soln. of a cellulose deriv.

NEEFE OPTICAL LAB 25.06.79-US-051345 (22.05.75-US-579796)

A96 (A11 A14) (04.11.80) C08l-01/10

ontact lens material is prepd. by dissolving in monomeric ethyl methacrylate 2-80 wt.% a solid cellulose ether or ster polymer material which does not prevent polymeris- tion of the methacrylate, and polymerising the soln.

Lens has good gas permeability, dimensional stability, ettability and optical clarity. It has a faster recovery rom being flexed than a polymethyl methacrylate or cell- losic contact lens material, and may be fitted in true con tact with the corneal surface from centre to edge, provid ing comfort to the wearer. If desired, medication can be dded to the lens material for slow dissolution by the lach- ymal fluids and diffusion to the lens surface. 25.6.79 as 51345 C.i.p. 4110264, 3957049 (+2.3.76, 29.10.76, .11.77, 26.6.78 - US - 663095, 737045, 848764, 919240) pp558)

CHE ★ D22 84213 C/47 ★US 4231-945

-5-Azido-methyl-2-alkoxy-tetra:hydro-furan(s) - useful as termediates for antibacterial cyclitol derivs.

SCHERING CORP 13.11.79-US-093722 (07.07.78-US-922605)

B03 C02 E13 (04.11.80) C07d-307/20

-5-(Azidomethyl)-2-(1-4C)alkoxy tetrahydrofurans (I), and e corresp. 5-(aminomethyl) (II) and 5-(R-aminomethyl) II) cpds. (R is a N-protecting gp. stable to acid and rem- vable with base) are new.

(I)-(III) are intermediates in the prepn. of N,O-protect- d-4-O-(2,3,5-trideoxy-5-azido-α-D-pentofuranosyl)-6-O- minoglycosyl-1,3-diaminocyclitol and related cpds. des- ribed in US 4212860 (Der. 55160C), which on removal of rotecting gps. give the corresp. cyclitols useful as broad- pectrum antibacterials. The last cpds. are therapeutic gents for man and animals and are also disinfectants. 3.11.79 as 93722 Div. ex 4212860 (8.11.78 - US - 959032) 14pp1248)

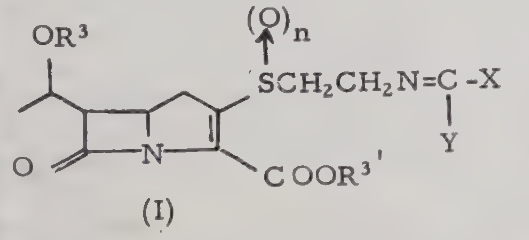
ERI D22 26432 B/14 =US 4232-030

I)-Methylene-thienamycin S-oxide and S-di:oxide derivs. - usefui s broad spectrum antibacterials

MERCK & CO INC 15.09.77-US-833619

*B02 C02 E13 (04.11.80) *EP---1-264 A61k-31/44 C07d-487/04 +A61k-31/40*

hienamycin derivs. of formula (I) are described. In the ormula n is 1 or 2; R^3 is formyl, acetyl, propionyl, buty- ryl, chloroacetyl, methoxyacetyl, amin-oacetyl, (m)ethoxy- carbonyl, (m)ethyl- carbamoyl, phenyl- thiocarbonyl, amino- propionyl, 4-amino- butyryl, methylamino acetyl, pyridiniumacetyl, guanylthioacetyl, guanidino- cetyl, 3-guandinopropionyl, acryloyl, propynol, amidino propionyl, sulphoacetylaminoacetyl, o-aminobenzoyl, P(O)(OCH$_3$)$_2$ -P(S)(OCH$_3$)$_2$, -P(S)(OCH$_3$)OH, etc.



(I)

M is H or alkali(ne earth) metal cation, $R^{3'}$ is H, methyl, t-butyl, phenacyl, pivaloyloxymethyl, 2,2,2-trichloroethyl, allyl, 3-methyl-2-butenyl, 2-methyl-2-propenyl, benzyl, benzylhydryl, phenyl, 5-indanyl, acetylthiomethyl, phthalidyl, propionyloxymethyl, methallyl, 4-pentenyl, 2-butenyl, diethylamino, methoxymethyl, etc., X and Y are each H, R, -OR, S-R and NR'R^2; R' and R^2 are each H, (cyclo) alkyl, (cyclo)alkenyl, opt. substd. benzyl or opr. substd. methyl; and R is H, (amino)alkyl, (amino)alkenyl, alkoxy- alkyl, alkylaminoalkyl, 4-pyridyl, 2-thiazolyl etc.

(I) and their salts are useful as antibiotics, as preservatives for goods and as disinfectants. 15.9.77 as 833619 (39pp924)

DOWC ★ D22 84250 C/47 ★US 4232-041

Stable aq. antimicrobial halogenated amide compsn. - contg. a poly:alkylene glycol but no low mol. wt. glycol or acid salt

DOW CHEMICAL CO 20.06.79-US-050399 (14.12.77-US-860643)

A97 E19 F09 (04.11.80) A01n-34/40 A01n-37/18

Antimicrobial compsn., which is free of glycols of mol. wt. $<$70 and organic acid salts and has pH 2-5, comprises 1-25 wt.% (1) an α-halogenated amide of formula $R_1CXBr-CON(R)_2$, where X is H, halogen or CN; each R is H or opt. inertly substd. satd. hydrocarbyl or both Rs together are an opt. inertly substd. satd. hydrocarbon gp. forming with the N a 4-10 ring member heterocyclic gp., and R_1 is CN or -CON(R)$_2$; (2) sufficient normally liq. polyalkylene glycol of the ethylene, trimethylene or tetramethylene series or its mono- or di-satd. hydrocarbyl ether to dissolve (1); and $>$ 20 wt.% (3) water.

Absence of glycols and salts provides (1) with improved stability, compared with conventional compsns. contg. these impurities. Compsn. is useful e.g. in dry cleaning fluids and aq. systems such as paper pulping and cooling towers. 20. 6.79 as 050399 (9pp55)

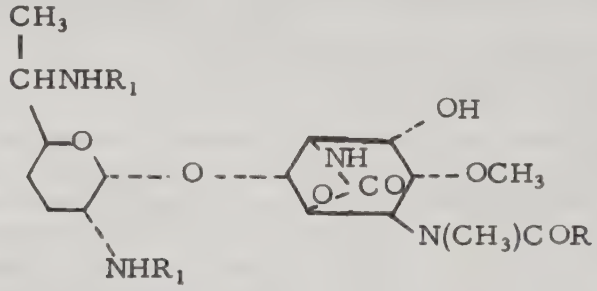
ABBO ★ D22 84292 C/47 ★US 4232-147

4-N-acyl:fortimicin B 1,5-carbamate derivs. - are intermediates for 2-de:oxy:fortimicin B

ABBOTT LABORATORIES 26.09.79-US-079143

B02 C02 E13 (04.11.80) C07h-17

Derivs. of formula (I) are novel



(where R is acyl and R_1 is H or benzyloxy- carbonyl)

In a preperative example, acetic anhydride (2.5 ml) was added to 2',6'-di-N-benzyloxy carbonylfortimicin B-1,5-carbamate (7.5g) in THF (150 ml), the mixture stirred at room temp. overnight, shaken with $CHCl_3$ (200 ml)- 5% aq. $NaHCO_3$ (200 ml) mixture and the $CHCl_3$ layer evaporated and the residue chromatographed on silica gel eluting with ethyl acetate to give 4-N-acetyl-2',6'-di-N-benzyloxycarbonylfortimicin B-1,5-carbamate. 26.9.79 as 079143 (4pp916).

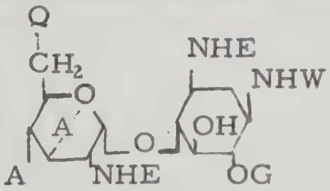
UPJO D22 22298 B/12 =US 4232-148

Antibacterial deoxy-neamine derivs. and precursors - useful e.g. for sterilisation and paper making BE 6.3.79)

UPJOHN CO 13.03.78-US-885872 (06.09.77-US-830684)

*B03 E13 F09 +P34 (04.11.80) *DT2836-913 C07h-15/22*

Cpds. of formula (I): and their acceptable salts, are novel and useful as intermediates to antibacterials.



(I)

Q is H or CH$_3$, Z' is NHE, OB or NCH$_3$E, E is removable NH$_2$ blocking gp. A' is H or OB, B' is removable alcohol blocking gp. W' is E or J. J is alkyl of 1-3C or CO-CHOH-(CH$_2$)$_n$-NH$_2$, n is 0-2. G is SO$_2$R$_7$. R_7 is 1-3C alkyl with 0-3 substits. which are independently F or Cl; phenyl substd. with 0-2 substits which are independently Cl, CH$_3$, NO$_2$ or CH$_3$O.

Specifically claimed 3',4'-di-O-acetyl-1,2',3,6'-tetrakis-N-(trifluoroacetyl)neamine. 5.3.79 as 017114 (+13.3.78-US-885872) (20pp393).

ICIL ★ D22 84321 C/47 ★ZA 7902-200
Skin depilation aq. compsn. - comprising a phenol and its water soluble salt and copolymer of acrylamide and non-acidic monomer as thickener
ICI AUSTRALIA LTD 22.05.78-AU-004469
A96 C03 (A14) (23.07.80) A01n C07c

NPDC ★ D22 C/47 ★ZA 7903-825
Treatment of wound, esp. burned tissue - by application of settable paste comprising particulate, hydrophilic water-swellable polymer and inert, water-miscible organic liq.
NATIONAL PATENT DEV CORP 10.07.79-US-056183
A96 P32 (02.09.80) A61f C08l

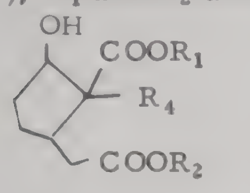
Compsn. and a process for treating a wound, esp. burned tissue surface comprises applying a settable, non-toxic paste comprising a particulate, hydrophilic, water-swellable polymer and an inert, water-miscible organic liq. of b.pt. >120°C capable of forming a paste, the paste having a setting time of up to an hour and a working time sufficient to apply the paste to burned tissue surface. Polymer in set condition is water-insoluble.
26.7.79. as 003825 (28pp).

See Also
D13 EP 18595 D15 J5 5129104 D15 J8 0042042

D23: OILS; FATS; WAXES

SAKB D23 14431 B/08 =DS 2824-843
Cyclopentanol derivs. - are useful intermediates for jasmone cpds., used in perfumery
OTSUKA KAGAKU YAKUHIN 12.08.77-JA-097175 (12.08.77-JA-097174)
*E15 (13.11.80) *DT2824-843 C07c-69/75*

New cpds. are cyclopentanol derivs. (I) of formula (I). In (I), R_1 and R_2 are lower alkyl, alkenyl or aralkyl gps. and R_4 is 2-pentenyl or 2-pentynyl.



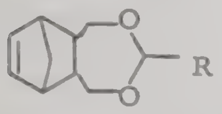
(I)

Cpds. (I) are pref. prepd. by hydrogenating the corresp. 2-cyclopentenone deriv. with aluminium hydride or a boron hydride. A 2-(cis-2-pentenyl)-cyclopentanol deriv. of the type of cpd. (I) may be prepd. by subjecting the corresp. 2-(2-pentyryl)cyclopentanol deriv. to cis. reduction with a Lindlar catalyst.

Cpds. (I) are useful as perfume intermediates. 6. 6. 78 as 824843 (7pp068).

HENK ★ D23 82775 C/47 ★DT 2918-168
5-Alkyl-4,6-di-oxa-tri:cyclo-dodecene derivs. - used in perfume compsns.
HENKEL KG AUF AKTIEN 05.05.79-DT-918168
E13 (13.11.80) A61k-07/46 C07d-321/10 C11d-03/50

Use of 4, 6-dioxatricyclo $[7,2,1,0^{2,8}]$dodec-10-ene derivs of formula (I) as fragrances, and perfume compsns. contg. (I), are claimed. In (I) R is opt. unsatd., opt. branched-chain 1-8C aliphatic hydrocarbon radical, esp. isopropyl. Also claimed are new cpds. (I) where R is Et, n-Pr or i-Pr.

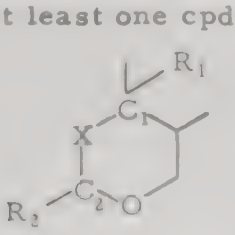


(I)

(I) have characteristic aroma notes which can be blended to produce novel fragrance effects, e.g. (I; R=i-Pr) has fruity, mushroom-like and citrus-jasmine notes. 5. 5. 79 as 918168 (11pp367).

ALBR ★ D23 83069 C/47 ★EP --18-833
Di:hydro:pyran and dioxan cpds. for perfumery compsns. - obtd. by prins reaction of allo-ocimene and formaldehyde
BUSH BOAKE ALLEN LT 04.05.79-GB-015620
E13 (12.11.80) A61k-07/46 C07d-309/18 C07d-319/06 C11b-09
D/S: E(BE,CH,DT,FL,FR,GB,IT,NL,OE,SW).

(1) A perfumery compsn. comprises odiferous ingredients including at least one cpd. of formula (I)



(I)

(where (a) X = O, R_1 is 4-methyl-penta-1,3-dien-1-yl and R_2 is H or (b) X is methinyl doubly bonded to C_1, R_1 is absent and R_2 is 2-methyl-prop-1-en-1-yl).
(2) (I) in which X is methinyl comprising >10% of the trans-isomer is new.
(3) The cpd. (I) in which X is methinyl is prepd. by heating the cpd. (I) in which X is O in an aq. polar protic solvent; or by heating 2,7-dimethyl-3-methylene-octa-4(trans)-6-dien-1-ol (II), 2,3,7-trimethyl-octa-3(trans), 5(trans)-7-triene-1-ol (III) or 2,3,7-trimethyl-octa-3(cis), 5(trans)-7-triene-1-ol (IV) in a polar protic solvent.
(4) (II), (III) and (IV) are new cpds.

Cpds. (I) have attractive floral odours (with a degree of citrus character when X is O).
1.5.80 as 301436 (24pp558).
(E) ISR: —— .

KENT/ ★ D23 83071 C/47 ★EP --18-839
Multipart decorative candle - of superposed elements frictionally interengaging and not fused together
KENT F M J 03.05.79-GB-015395
(12.11.80) C11c-05
D/S: E(BE, CH, DT, FL, FR, IT, LU, NL, OE, SW)

A candle is made up of superposed elements frictionally engaging each other and not fused together so that a large number of decorative candles can be produced from a series of elements.

Each element pref. has a cavity at one end and a projection at the other formed by one or more shoulders. Each element pref. has a central bore so that a stiffened wick can be located in the aligned bores of a candle. The wick may be a core candle with a wick of diameter providing correct burning characteristics for the overall finished diameter. Alternatively, each element has a wick abutting those of adjacent elements. 1.5.80 as 301442 (14pp1358)
(E) ISR: US3388960; NL7305625; US2324723; FR1482544; DS1267774; FR2200481.

YOKK- ★ D23 83637 C/47 ★J5 5130-929
3,7-Di:methyl-1,6-octa:diene-3-ol prodn. - by redn. of 3,7-di:methyl-1,5,7-octa:tri:en-3-ol
YOKKAICH GOSEI KK 30.03.79-JA-037075
B05 E17 (11.10.80) C07c-29/13 C07c-33/02

Prodn. of 3,7-dimethyl-1,6-octadiene-3-ol (linalool) (II) comprises selectively reducing 3,7-dimethyl-1,5,7-cotatrien-3,7-dimethyl-1,5,7-octatrien-3-hydroperoxide of formula (I) with a reducting agent (where R = OH or O-OH).

(I) (R =OH) may be prpd. by dimerising isoprene to 2,6-dimethyl-1,3,6-octatriene, and oxidising the latter followed by redn. (I) (R =OH) is produced at the oxidn. step of 2,6-dimethyl-1,3,6-octatreiene to (I) (R =OH). The rend. of (I) to (II) is effected with reducing agents, e.g. alkali metal ammonia or amine (Birch redn.), Ni complex-H_2 (Nihon Kagaku Kaishi 1976 (12) 1893), active MgO-H_2 (J. Am. Chem. Soc., 98, 4652(1976). The most convenient method is Birch reduction.

(II) is useful as perfume or as an intermediate in production of geraniol, nerol, citronellol, squalene, isophytol, and vitamin E. The process for producing (II) is not accompanied by contamination with non-terpenoid impurities. 30. 3. 79 as 037075 (5pp)

CF- D23 69530 A/39 =J8 0041-676

orella extract used as an antioxidant for fatty oils - by adding to n. of fatty oils in amt. within specified range

GFC FOODS KK 02.02.77-JA-010515

*(D16) (25.10.80) *J53096-002 C11b-05*

toxidation of fatty oils is retarded by the addn. of 0.1- (pref.0.3-1.0) wt % of chlorella extract to the soln. of ty oils. 2.2.77 as 010515 C11b-5/00 (25.10.80) GFC ODS KK (3pp) (J53096002)

II/ D23 26051 A/14 =J8 0041-677

pg. rice oil e.g. dewaxed rice oil - into neutral fatty oil, fatty acid d phenolic material, using aq. solns. of polar and non-polar vents and aq. alkali

ISHIHARA H 04.08.76-JA-093432

*(25.10.80) *J53018-605 C11b-07*

ce oil (rice bran oil, rice germ oil, dewaxed rice oil) is pd. into neutral fatty oil, fatty acid and phenolic material ryzanol) using aq.soln. of polar solvent, aq. soln. of non-lar solvent and aq.alkali soln. Prods. are obtd. in high rity, simultaneously and indexpensively. 4.8.76 as 093432 1b-7/00 (25.10.80) ISHIHARA H (7pp170) (J53018605)

HI/ D23 26120 A/14 =J8 0041-678

covery of neutral oil, fatty acid and phenolic substance - from rice an oil, rice embryo oil or their treated oil

ISHIHARA H 04.08.76-JA-093433

*(D21) (25.10.80) *J53018-715 C11b-07*

ne starting oil is mixed with aq.polar solvent soln. non-lar solvent and aq.alkaline soln. The soln. is stood to diment free fatty acid in the starting oil as a soap soln. ne upper layer of the nonpolar solvent soln.contg. neutral l and phenolic substance is sepd. The soln. sepd. is washed with aq.polar solvent soln. contg. alkali to extract phenlic substance as its alkali salt.

The extract is hydrolysed with acid to obtain a soln.of enolic substance. The nonpolar solvent soln.contg. neut-l oil is washed with aq. polar solvent soln. thus obtaining nonpolar solvent soln. of neutral oil. The washing soln. eing reused as solvent. The soap soln. obtd. is washed ith nonpolar solvent to extract neutral oil dissolved in it. ne soap soln. is hydrolysed with acid to obtain fatty acid oln.

Neutral oil of high quality, highly pure fatty acid and enolic substance (e.g.olizanol) can be sepd. inexpensively ith high yield even from rice bran oil having high acid alue. 4.8.76 as 093433 C11b-7/00 (25.10.80) ISHIHARA H pp) (J53018715)

HI/ D23 35802 A/20 =J8 0041-679

actionating rice bran oil, rice germ oil or a treated deriv. - to otain neutral oils, fatty acids and phenolic derivs.

ISHIHARA H 17.09.76-JA-111966

*(25.10.80) *J53037-698 C11b-07*

ethod comprises (a) stirring the starting oil with an aq. oln. of a polar solvent, a non-polar solvent and an aq.soln alkali, (b) allowing the resulting mixture to sediment e free fatty acids as a soln. of a soap in a lower layer,) washing the soln. of neutral oil and phenolics in the up-er non-polar solvent layer with an aq. polar solvent, (d) eusing the aq. polar solvent soln. for neutralising fatty ids contained in the starting oil, (e) stirring the soln.of eutral oil and phenolics with a soln. of alkali in polar olvent soln. (f) allowing the resulting mixture to sediment nd separate a soln. of alkali salt of the phenolics in a ower layer, (g) acid decomposing the soln. to obtain the henolic acid, (h) washing the neutral oil soln. dissolved n the non-polar solvent in an upper layer with an aq.polar olvent soln. to obtain a non-polar solvent soln.of neutral il, (i) reusing the aq.polar solvent soln. as a solvent for xtracting the phenolics from the soln. of the neutral oil nd phenolics or as a solvent for neutralising fatty acids in ne starting oil, (j) washing the soap soln. with a non-polar olvent to extract neutral oils, (k) acid decomposing the oap soln. to obtain fatty acid soln. and (I) reusing the non-olar solvent after extracting neutral oils, as a solvent r neutralising free fatty acids contained in the starting il. 17.9.76 as 111966, C11b-7/00, (25.10.80) ISHIHARA H (7pp) (J53037698)

ISHI/ D23 35803 A/20 =J8 0041-680

Fractionating neutral oils, fatty acids and phenolic substances - from rice bran oil, rice germ oil or treated oil derived from these

ISHIHARA H 17.09.76-JA-111967

*(25.10.80) *J53037-699 C11b-07*

Method comprises (1) mixing the starting oil, an aq.soln. of a polar solvent, a non-polar solvent and an aq.soln. of alkali, (2) allowing the resulting mixt. to stand to separate free fatty acids as a soln. of soap in a lower layer, (3) washing the soln. of neutral oil and phenolic substance dissolved in the non-polar solvent in an upper layer with an aq.polar solvent, (4) resulting the aq. polar solvent soln. used for washing as a solvent for neutralising fatty acids contained in the starting oil, (5) washing the soln. of neutral oil and phenolic substance dissolved in washed non-polar solvent with a soln. of alkali dissolved in the aq. polar solvent soln. to extract the phenolic substance dissolved in the soln. as alkali salt, (6) allowing the resulting mixt. to stand to sediment and separate a soln.of alkali salt of phenolic substance in a lower layer, (7) acid decomposing the soln. to obtain phenolic substance.

Method further involves (8) washing the neutral oil soln. dissolved in the non-polar solvent in an upper layer with an aq.polar solvent soln. to obtain a non-polar solvent soln of neutral oil, (9) reusing the aq. polar solvent soln.used for washing as a solvent for extracting polar solvent soln. used for washing as a solvent for extracting the phenolic substance from the soln. of the neutral oil and phenolic substance or as a solvent for neutralising fatty acids contained in the starting oil, (10) washing the soap soln. with a non-polar solvent to extract neutral oils contained therein (11) acid decomposing the soap soln. thus obtd. to obtain a fatty acid soln. and (12) resulting the non-polar solvent after extracting neutral oils, as a solvent for neutralising free fatty acids contained in the starting oil. 17.9.76 as 111967, C11b-7/00 (25.10.80) ISHIHARA H (7pp62) (J53037699)

NISW ★ D23 83759 C/47 ★J8 0041-720

Purifying palm oil - by treating with acid, adding decolourising agent, heating, cooling, etc.

NISSHIN OIL MILLS KK 27.12.77-JA-156352

(25.10.80) C11b-03/10

Method comprises (a) treating raw palm oil with acid, (b) heating the oil to 80°C in a vacuum, (c) adding decolouring agent, (d) heating the mixt. at $\geqslant$ 100°C, (e) cooling the mixt. to $<$ 70°C, (f) heating again to 90-100°C, (g) filtering to remove the decoluring agent, and (h) steam-distilling. 27.12.77 as 156352, C11b-3/10 (25.10.80) NISSHIN OIL MILLS KK (4pp83) (J54088904/

NKKA D23 28180 C/16 =J8 0041-815

Copper-aluminium oxide hydrogenation catalyst mfr. - by adding ammonium salt to aq. sodium aluminate soln. contg. sodium hydroxide, adding acidic copper salt soln. etc.

NIKKI KAGAKU KK 28.08.78-JA-103848

*E19 J04 (27.10.80) *J55031-428 B01j-23/74 C07d-307/20 C:1c-03/12 + C07b-01 C07c-31/20 C07c-87/52*

An ammonium salt forming copper ion and amine complex ion, e.g. ammonium (bi)carbonate, ammonium nitrate, ammonium tartrate or ammonium oxalate, is added in an amt of 0.05-1.0 moles per Cu atom to an aq.Na aluminate soln. contg. NaOH. The aq.soln. is mixed with an acid Cu salt aq soln. contg. nitrate or sulphate of alkali(ne earth)metal to crystallise copper oxide, aluminium oxide, copper hydroxide, and aluminium hydroxide which are, in turn, filtered washed with water, dried and calcined.

This method can mfr. highly active hydrogenation catalyst in which Cu oxide and Al oxide are closely and uniformly mixed together in a Cu/Al ratio of 0.5 to 2.5. The catalyst exhibits higher catalytic activity and selectivity than the Cu-Cr oxide catalysts when used in the hydrogenation of esters, lactones, acid anhydrides, aromatic nitro cpds.fats and oils including fish oil, etc. 28.8.78 as 103848 B01j-23/74, C07b-1/00, C07c-31/20, 87/52, C07d-307/20, C01k-3/12 (27.10.80) NIKKI KAGAKU KK (6pp117) (J55031428)

KHPO ★ D23 84057 C/47 ★SU -727-679
Vegetable oil extractor - has two joined cylinders with lugs between turns of perforated auger flights
KHARKOV POLY 11.07.77-SU-507145
(15.04.80) C11b-01/10

Intensified extraction of vegetable oil in the unit operating with counterflow is ensured by the two cylinders connected on the periphery. Thr raw material is continuously fed through the loader is countercurrent to the solvent. The wetted material is picked up by the perforated flight of auger and passes through the perforated lugs set between the turns of the flight. Screens of ports prevent particles ingress into the vacuum chamber so that the extraction is taking place in a fluidised bed.

Lozheshnik, V.K., Kudrin, Yu.P., Spinov, R.I., et al Bul. 14/15.4.80.11.7.77.as507145(4pp89).

See Also

D13 US 4231940 D13 US 4232122

D24: SOAP; SOAP DETERGENTS

NOTHING TO REPORT

D25: OTHER DETERGENTS

PETE/ ★ D25 C/47 ★CS 7908-685
Surfactant based on salt of sulpho:succinic acid ester
PETERKA V 13.08.79-CS-008685
E19 (31.07.80) C11d-01/04

PETE/ ★ D25 C/47 ★CS 7908-686
Liq. surfactants based on sulpho-succinate
PETERKA V 13.08.79-CS-008686
E19 (31.07.80) C11d-01/04

VERE D25 70901 Y/40 =DS 2611-880
Cleansing cloth contg. detergent - as nonionic weakly polar wetting agent bonded to anion or cation exchanger
VER PAPIERW SCHICKEDANZ 20.03.76-DT-611880
*A97 E14 F06 P28 (A87 A91) (13.11.80) *DT2611-880 A47l-13/17*

A cleaning cloth contains a deposit of a nonionic, weakly polar wetting agent that is bound chemically to an anionic or cationic exchange resin. Pref. the wetting agent is an alkylaryl polyglycol ether bound chemically to a sulphonate or alkylammonium salt of a styrene (co)polymer.

The exchanger-wetting agent compsn. is pref. arranged between two layers of fleece material which are then bound together by adhesive. The cleaning action lasts for at least 20 washing cycles and the cloth may be used to clean car wind screens, offices, etc. 20.3.76 as 611880 (—).

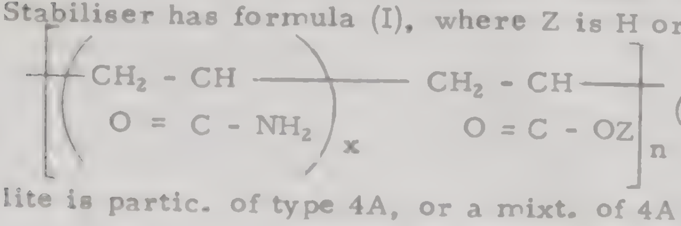
STAE- ★ D25 82765 C/47 ★DT 2918-049
Stain remover based on aq. alcohol - contg. glycol ester, alkanolamine and wetting agent
FA STAEDTLER J S 04.05.79-DT-918049
(13.11.80) C11d-03/44

Stain-removing compsns., esp. for removing ink stains cuased by writing materials, comprise (a) a solvent comprising a mixt. of H_2O, a water-miscible monohydric aliphatic alcohol and an aliphatic glycol ester, (b) an emulsifier comprising an aliphatic alkanolamine; (c) a wetting agent comprising a mixt. of an ethoxylated alkylphenol and a quat. ammonium cpd., and opt. other additives.

Compsns. are esp. effective in removing ink stains (including oil-based ink stains) from textiles; they are easily washed out with water. 4.5.79 as 918049 (9pp367).

MONT ★ D25 82875 C/47 ★DT 3016-433
Stable zeolite suspension contg. acrylamide polymer - as stabiliser, esp. for spray-drying to component for detergent compsn.
MONTEDISON SPA 02.05.79-IT-022294
A97 (A14) (13.11.80) C01b-33/26 C11d-03/12 C11d-11/02

Stabiliser has formula (I), where Z is H or Na; x is $\not<$ 4.7;



$$\left[\left(\underset{O=C-NH_2}{CH_2-CH} \right)_x - \underset{O=C-OZ}{CH_2-CH} \right]_n$$

(I)

and n is such as to give a mol. wt. of $7.5-12 \times 10^6$. The zeolite is partic. of type 4A, or a mixt. of 4A and X. The particle size is < 100 μm (< 30 μm), esp. < 15 μm. The suspension may contain $\not>$ 70wt.% of zeolite A of formula $Na_2O.Al_2O_3.2SiO_2.4.5H_2O$, corresp. to 30-56 (48-54)wt.% of anhydrous zeolite. The amt. of stabiliser is 0.05-0.2 wt.%. The viscosity of the suspension is 200-3500 (500-2000) cps., and the pH is 11-13. The zeolite may be added to an aq. soln. of the stabiliser, or may be prepd. from Na aluminate and Na silicate solns., followed by addn. of the stabiliser to the wet zeolite.

The suspension has good rheological properties, and is stable without further additives, e.g. without phosphates. It can be stored, pumped and sprayed. 29.4.80 as 016433 (18pp510).

BARN/ ★ D25 82886 C/47 ★DT 3016-707
Cleaning compsns. contg. petroleum distillate and surfactant - for cleaning hands, machinery, textiles, etc.
BARNES R I 19.06.79-GB-021370 (05.05.79-GB-015743)
(13.11.80) C11d-03/16

Cleaning compsns. comprise ≥1 petroleum distillate and ≥ 1 surfactant, pref. in the form of an emulsion with a gel-like consistency. Petroleum distillate can be a light mineral oil, a solvent, a hydrocarbon or a satd. or unsatd. vegetable or mineral oil (sic), pref. kerosene. The surfactant can be ionic or nonionic, pref. a polyalkoxylated alkylphenol, amine or alcohol, esp. polyoxyethylated octylphenol.

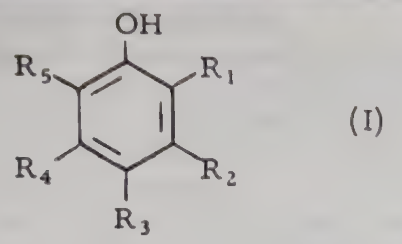
Compsns. are non-acidic, non-alkaline and non-abrasive, and can be used to remove grease, soot, dirt, paint, etc., from hands, machinery, textiles and other surfaces. 30.4.80 as 016707 (10pp367).

QUIM- D25 23722 C/13 =EP --18-407
Non-pollutant, phosphate-free detergent compsn. - contg. fatty acid soap and sucrose fatty acid ester(s) in different substitution degrees (BR 6.2.79
QUIMICA MILEN SA 30.08.78-BR-005654
*A97 E13 (12.11.80) *WP8000-452 C07h-13/06 C11d-09/26*
D/S: E(CH, DT, FR, GB, LU, NL, OE, SW)

30.8.79 as 901003

CONO D25 51669 C/29 =EP --18-463
Ethoxylation of alcohol(s) - with ethylene oxide, and barium oxide (or hydroxide) catalyst promoted with phenol derivs.
CONOCO INC 04.05.79-US-036273
*E14 F09 (12.11.80) *US4210-764 C07c-41/03 +C07c-43/13*
D/S: E(BE, DT, FR, GB, SW).

Ethoxylation of alkanols is carried out by reacting with ethylene oxide (EO) at 120-250°C in the presence of a catalyst system comprising (a) BaO, $Ba(OH)_2$ and/or hydrated $Ba(OH)_2$ and (b) a phenol of formula (I):



(I)

(where R_1-R_5 are independently H or 1-10C alkyl).

The products are useful as surfactants, e.g. in detergent compsns., detergent builders, polishes, dry cleaning materials, and in the pulp and paper and fibre industries.

The catalyst system greatly reduces the induction period for ethoxylation and allows prodn. of highly ethoxylated adducts with a narrow molecular wt. distribution. Conversion is high and by-product formation is low.

2.1.80 as 100007 (19pp367).
(E) ISR:-

CHEM ★ D25 82943 C/47 ★EP --18-482
Dish-washing compsn. - contg. biologically degradable, low-foaming surfactant prepd. by adding higher epoxide and ethylene oxide to alcohol starter mol.
CHEM WERKE HULS AG 04.05.79-DT-918047
A25 E17 (A97) (12.11.80) C07c-41/03 C07c-43/11 C08g-65/08 C11d-01/72
D/S: E(FR, GB, IT, NL).

Biologically degradable, low-foaming surfactants have formula:

$$R[O-(CHR'-CHR''O)_x-(CH_2CH_2O)_y-H]_{1-2} \quad (I)$$

and/or

$$R[O[(CHR'-CHR''O)_x-(CH_2CH_3O)_y]_z-H]_{1-2} \quad (II)$$

where R is 8-22C alkyl or 2-22C hydroxyalkyl; R' and R'' are H or 1-20C alkyl, provided R' and R'' do not both denote H and R' + R'' contain 8-20C; in (I) x is 0,5-5, pref. 2-3, and y is 5-50, pref. 20-30; in (II) z is freely chosen, provided the sum of all x (z) is 0.5-5 (2-3) and the sum of all y (z) is 5-50 (20-30)).

The surfactants are used in solid or liq. detergent compsns. for household or industrial dish washing machines.

(I) and (II) have a high degree of re-mineralising, i.e. degradation to $CO_2 + H_2O$, e.g. 50-80%.

10.3.80 as 101193 (16pp200).
(G) ISR: OE-336555; DT2432757; DT2318950; DT2448388; FR1063244.

HENK ★ D25 82995 C/47 ★EP --18-630
Fine textile detergent having softening activity - contg. poly:glycol ether(s), fatty acid ethanolamide and ammonium or imidazoline-derived quat. salt
HENKEL KG AUF AKTIEN 07.05.79-DT-918364
A97 E19 (A25) (12.11.80) C11d-01/83
D/S: E(BE, CH, DT, FL, FR, IT, NL, OE).

Powdery detergent, with softening activity for fine wash textiles, contains, by wt., 5-20% of ≥1 aliphatic polyglycol ether having formula:

$$R^1R^2CHCH_2O(CH_2CH_2O)_nH \quad (I)$$

where R^1 is 8-20C linear alkyl or alkenyl; R^2 is H or 1-4C alkyl and n is 2-20) and/or an 8-15C alkylaryl-polyglycol ether contg. 3-15 C_2H_4O units; (b) 1-10% 12-18C fatty acid ethanolamide; (c) 2-10% textile-softening quat. ammonium salt consisting of NH_3- and/or imidazoline derivs. esp. contg. 2 long-chained aliphatic gps. in mol. and (d) 60-92% standard fine wash detergent components.

The compsns. are used for washing wool, synthetics, e.g. polyesters, polyacrylonitrile, polyamide and their mixts., by hand or machine, at < 60 (< 30)°C. The textiles washed have a pleasant soft hand and antistatic properties. A dense foam is formed in hand-washing, but no over-foaming takes place in machine-washing. The foam is easily rinsed off.

0.4.80 as 102333 (16pp200).
(G) ISR: EP----595; DT2529444; DT2609807.

UNIL ★ D25 83010 C/47 ★EP --18-678
Efficient bleach prod. for use in washing machines - comprising a removably coated, water permeable bag contg. per. cpd.
UNILEVER NV 20.04.79-FR-010064
A97 (12.11.80) C11d-03/39 C11d-17/04
D/S: E(BE, CH, DT, FL, FR, GB, IT, NL, OE, SW).

A bleach prod. comprises a per cpd. contained within a closed water-insoluble but water-permeable bag of fibrous material provided with a protective water-impermeable coating, removable in water at 30-75°C, pref. 35-65°C.

The prod. can be used in washing machines for bleaching fabrics with or without a detergent prod. The bag has high resistance to mechanical action and chemical attack by the bleaching compsn. and yet can be made from cheap cellulosic fibres. The coating prevents dusting out of the compsn. through the bag pores during handling, prevents access of atmos. moisture to the bleaching compsn., and provides a means of controlling the bleach to be dispersed or dissolved out of the bag at the desired moment.

15.4.80 as 200336 (20pp558).
(E) ISR: FR2391275; FR2259179; FR2305532.

SHEL ★ D25 83013 C/47 ★EP --18-681
Mild oxidation of alkoxy:alcohol(s) to alkoxy:acid(s) - using tert. butyl hydroperoxide as oxidising agent in the presence of alkali metal hydroxide and palladium catalyst
SHELL INT RES MIJ BV 03.05.79-US-035871
A25 E17 (A97) (12.11.80) C07c-51/28 C07c-59/12
D/S: E(BE,DT,FR,GB,IT,NL).

Alkoxyalkanoic acid of formula

$$RO(CH_2CHR'O)_nCH_2COOH \quad (I)$$

(R is alkyl, R' is H and/or Me and n is an integer) is prepd. by oxidising alkoxyalkanol of formula

$$RO(CH_2CHR'O)CH_2CH_2OH \quad (II)$$

in the presence of an alkali metal hydroxide and a heterogeneous Gp. VIII noble metal catalyst, the improvement being that the oxidising agent is tert-butyl hydroxide and the noble metal is Pd. Reaction is pref. effected at 20-100°C.

(I) are used as anionic detergents. The prepn. avoids the prior art use of chloroacetic acid and the formation of NaCl by-prod., and is a mild, low temp. process minimising degradation prods. and giving high conversions (80-95 %) with selectivity > 95% to the acid.

17.4.80 as 200352 (16pp960).
(E) ISR: ——— .

COLG D25 45309 Y/26 =GB 1579-261
Free flowing nonionic detergent compsn. - based on spray-dried phosphate silicate auxiliary beads
COLGATE PALMOLIVE CO 26.02.76-US-661471
*A97 E17 (19.11.80) *BE-851-816 C11d-11/02*

Prodn. of free flowing particulate detergent compsn. comprises (a) hydrating anhydrous phosphate builder salt (I) in the presence of alkali metal silicate (II) to form hydrated aq. slurry, (b) adding further anhydrous phosphate builder salt to the slurry to form a crutcher mix, the wt. ratio of (I) to (II) being 1.5:1 to 5:1 and the wt. ratio of (I) to (III) being 0.3:1 to 0.7:1, (c) spray-drying the crutcher mix to form builder beads having a porous outer surface and a skeletal internal structure and (d) applying to the beads a liq. or liquefiable organic detergent.

Method does not produce pollution, is economical and has high throughputs using conventional equipment. The product is non-tacky and has improved water-solubility.

25.2.77 as 008123 (13pp393).

COLG D25 45309 Y/26 =GB 1579-262
Free flowing nonionic detergent compsn. - based on spray-dried phosphate silicate auxiliary beads
COLGATE PALMOLIVE CO 26.02.76-US-661471
*A97 E17 (19.11.80) *BE-851-816 +C11d-07/60*

Prodn. of free flowing detergent builder beads comprises

(a) hydrating anhydrous phosphate builder salt (I) in the presence of alkali metal silicate (II) to form a hydrated aq. slurry, (b) adding further anhydrous phosphate builder salt (III) to the slurry, and (c) spray-drying the crutcher mix formed to form a particulate material. The wt. ratio of (I) to (II) is 1.5:1 - 5:1 and that of (I) to (III) is 0.3:1 - 0.7:1.

Method does not produce pollution, is economical and high throughput using conventional equipment. The prod. is non-tacky and has improved water-solubity. Lengthy aging periods of the beads are not necessary prior to overspraying or before filling into containers. 25.2.77 as 29836/79 Div.ex. 1579261 (9pp393).

HENK D25 76322 A/43 =GB 1579-505
Phosphate free washing powder compsn. contg. aluminosilicate - in admixture with surfactant, alkane poly:phospnonic acid (deriv.) complexant and mineral peroxy cpd.
HENKEL KG AUF AKTIEN 22.04.77-OE-002839
*A97 E33 (A25 E19) (19.11.80) *BE-866-238 C11d-03/12 +C11d-01*

Pulverulent, phosphate-free textile detergent contains (a) 20-40 wt.% water-insoluble, finely divided, synthetic crystalline alkali metal aluminosilicate contg. bound water, corresp. to the formula: $1.5Me_2O.Al_2O_3.1.3-4.0 SiO_2$ (based on the anhydrous active substance = AS) in which Me is Na or K, the aluminosilicate having a Ca binding capacity of 50-200 Mg CaO/g of AS, (b) 5-20 wt.% of ⩾1 anionic, nonionic, amphoteric or zwitterionic surfactant, (c) 0.05-0.75 wt.% water-soluble organic complex former which is a substd. alkane diphosphonic or triphosphonic acid or their alkali metal salts and (d) 10-35 wt.% inorganic per cpd..

The detergent is useful at high temps., esp. binding and its fabric protecting properties are even more pronounced than high phosphate, high quality detergents. 19.4.78 as 015421 (18pp393).

DEGS D25 67099 A/38 =GB 1579-513
Stabilised sodium percarbonate for washing powders - coated with sodium silicate and percarbonate and/or tri:poly:phosphate
DEUTSCHE GOLD & SILBER 19.03.77-DT-712138
*E34 +P42 (19.11.80) *BE-865-062 C01b-15/10*

Na percarbonate particle comprises a Na percarbonate core and a coating of a Na silicate, Na percarbonate and/or Na tripolyphosphate. The coating is produced from Na silicate in the form of waterglass and sodium percarbonate dust, or from waterglass coated with Na tripolyphosphate.

Pref. the particle is produced by wetting sodium percarbonate with the silicate soln., then coating with sodium percarbonate dust and/or sodium tripolyphosphate. The wetting and coating sequence are opt. repeated and the water in the silicate soln. applied is completely or partially removed.

The particle produced has a total active oxygen content of 8 - 15% and an SiO_2-content of 0.05-5 wt.%. 8.3.78 as 009175 (6pp931).

COLG D25 67111 A/38 =GB 1579-668
Liquid detergent compsn. for cleaning hard surfaces - contains alkylbenzene sulphonate, detergent salt, urea and water
COLGATE PALMOLIVE CO 10.05.77-GB-019558
*E14 (E16 E34) (19.11.80) *BE-866-895 C11d-03/04 C11d-10/02 +C11d-01/02*

Cleaner comprises 1-30 wt.% alkanolamine salt of a water-soluble anionic suphonated detergent contg. a 6-22C alkyl gp., 1-10 wt.% water-sol. alkali metal builder salt, the wt. ratio of builder to detergent being 1:10 to 1:1, and 1-10 wt.% urea, the rest being water.

The compsn. is homogeneous and does not contain abrasives. It removes grease effectively without dulling or excessive foaming. It can also remove soil from hands or vehicle tyres, or wax from waxed surfaces. 10.5.77 as 019558 (4pp955).

PROC D25 08317 A/05 =GB 1579-689
Liquid detergent compsn. for dish washing - contg. phosphate or phosphonate detergency reinforcing agent
PROCTER & GAMBLE CO 27.07.76-US-709015
*A97 E19 (A25) (19.11.80) *BE-857-227 C11d-01/37*

A light duty liq. detergent compsn. comprises 5-35% of an anionic surfactant of formula $R-(Y)_n-(O)_nSO_3M$. R is 8-24C opt. satd. n- or iso-hydrocarbyl attached to (Y) via any position. Y is $(OC_2H_4)_x$, x is 1-30, or $(O-CH_2-CHOH-CH_2)_m$, m is 1-3, or phenyl. n is 0 or 1. M is ⩾1 of Na, K, mono-, di-, or tri-2-4C alkanolammonium, ammonium, Mg and Ca. The compsn. further comprises 0-15% of an amine oxide or amide surfactant as a suds boosting agent, 0-20% of a detergency building, water and 0.5-10% of a detergency boosting agent which is ⩾1 of the water soluble cpds. of formula $R'(Ph)_{n'}(OR'')_{n''}(O)_{n^*}O-(OM)_2$, R' is 14-20C alkyl, R'' is 2-3C alkylene, n' is 0 or 1, n'' is 0-20, n* is 0 or 1, M is H, Na, K, NH_4, mono-, di-, tri- alkylammonium, Mg, and Ca. R' is a random alkyl gp. when n', n'' and n* are 0.

The compsn. is for domestic use and is used as an aq. soln. contg. 0.1-0.5 % of the compsn.. 27.7.77 as 031566 (9pp965).

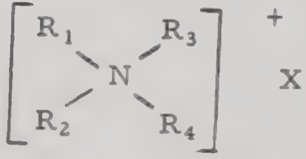
CIBA ★ D25 83201 C/47 ★GB 2046-778
Compsns. for cleaning lavatory bowls or urinals - contg. hydrophobic material, hydrophilic surfactant, and satd. fatty acid
CIBA GEIGY AG (DIAS) 03.03.80-GB-007176 (01.03.79-GB-007341)
A97 E19 (19.11.80) C11d-03/20

Tablet or block for cleaning lavatory bowls or urinals consists of (by wt.): (a) 100 pts. of a hydrophobic material (I); (b) 50-200 pts. of one or more hydrophilic surface active agents (II); and (c) 20-50 pts. of one or more 8-24C linear mainly satd. fatty acids (III). (I) is one or more mono- or dialkanolamides of fatty acids; or a mixt. of (i) one or more fatty acid dialkanolamides and (ii) one or more alkoxylated fatty acid monoalkanolamides (1-4 mol. alkylene oxide/mol.) in wt. ratio (i):(ii)= 1:4-0.5. (II) is a fatty alcohol ethoxylate (> 16 ethylene oxide (EO) units/mol.); or an (EO)-propylene oxide copolymer (based on a propylene glycol of mol.wt. ≮ 1000) contg. ≮ 50 % by wt. (EO), and with mol.wt. 4000.

Incorporating (III) into the block prevents it disintegrating too quickly, even though it may not contain a major proportion of the relatively insoluble component (I). 3.3.80 as 8007176 (8pp478).

LIOY ★ D25 83448 C/47 ★J5 5129-497
Liquid detergent compsn. of excellent oil solubility - contains anionic olefin sulphonate surfactant and quat. ammonium salt of cationic surfactant for mild action on skin
LION FAT & OIL KK 00.00.79-JA-127078 (03.07.78-JA-080660)
E16 (07.10.80) C11d-01/12

Liq. detergent compsn. contains an anionic surfactant (A) of the formula OS-M (OS is acid gp. of 12-18C olefin sulphonate and M is an alkali metal or an organic amine) and a quat. ammonium salt type cationic surfactant (B) of formula (I).



(I)

R_1 is 8-14C alkyl, R_2, R_3 and R_4 are each methyl or oxyethyl and X is a halogen, CH_2SO_4 or C_2H_5-SO_4). (A)/(B) molal ratio is 0.1/1-2.0/1 and proportion of 1-40 wt.% (total wt. of (A) and (B). The liquid detergent compsn. is regulated to pH 5-8.

The liquid detergent composition has excellent deterging performance, oil solubility, and liquidity, as well as mild action on skin. The pref. olefin sulphonate is α-olefin sulphonate and the quat. ammonium salt type cationic surfactant (B) used includes octyltrimethylammonium-chloride, lauryltrimethylammoniumchloride, lauryltrimethylammoniummethylsulphate, myristyltrimethylammoniumchloride, etc. 3.7.78 as 127078/79 Div.ex. 80660/78 (6pp117)

EHA/ ★ D25 83449 C/47 ★J5 5129-498

cid activation of chlorine-based bleaching agent - involves addn. oxalic acid and e.g. sodium hydrogen sulphate, to reduce xcessive chlorine evolution

UEHARA M 30.03.79-JA-036831

(07.10.80) C11d-07/54

rocess is used for acid activation of a chlorine-based leaching agent, e.g. sodium hypochlorite, sodium chlor- e, trichloroisocyanuric acid, sodium dichloroisocyanur- te etc. A methanol soln. of a mixt. of a hydrogen sulphate .g. sodium hydrogen-sulphate, potassium hydrogen- ulphate, calcium hydrogen sulphate, etc., and oxalic acid s added to a chlorine-based bleaching agent soln.

This method enables one to perform the bleaching oper- tion using the agent in a pH-regulated soln. bath without eneration of excessive chlorine gas, thus preventing det- rioration of the working environment, corrosion of appts. nd lowering of the strength of bleached cloth.

In an example, 3 g/l sodium dichloroisocyanurate, 0.5 /l bleaching aid (consisting of 50 pts. of oxalic acid, 50 ts. sodium hydrogen sulphate, and 5 pts. methanol), and % (on the basis of cloth) nonionic surfactant were mixed o prepare the bleaching agent. 30.3.79 as 036831 (3pp117)

ANN ★ D25 83724 C/47 ★J5 5131-098

ragrant detergent compsn. for flush toilets, etc. - contains a water- oluble solid urethane cpd. obtd. by reacting an isocyanate and a olyoxyalkylene cpd.

SANYO CHEM IND LTD 30.03.79-JA-039198

A97 (A25) (11.10.80) C11d-03/37

ompsn. consists of a water-soluble solid urethane cpd. btd. from the reaction of an organic isocyanate cpd. with polyoxyalkylene cpd. of formula $R[(OA_1)_mOH]_n$ (I) R is a residual gp. (1-3 valencey) of a 1-18C hydroxy cpd. .g. low-molecular polyols, 8-18C aliphatic alcohol, or 2-18C alkylphenol, less its hydroxy gp., A_1 is a 2-4C lkylene gp., m is 20-700, and n is 1-8), and a fragrant ubstance. The (OA_1) portion of (I) is of $[(OCH_2CH_2)_x(OCH_2\text{-}CH(CH_3))_y(OCH_2CH_2)_z]$ (x, y and z are, respect- vely, 0 or an integer and the sum of these is 20-700, sat- sfying the formula $0 < 58y/44(x+z) + 58y \leqslant 0.5$.

The compsn. gives a fragrance to the flushing water of a flush toilet and cleans the flush toilet while granually issolving in the flushing water. 30.3.79 as 039198 (6pp)

DAIK ★ D25 83725 C/47 ★J5 5131-099

Surface cleaning compsn. for removing paint, ink etc. - contg. halogenated hydrocarbon, fluorinated alcohol and a solvent e.g. benzene, toluene

DAIKIN KOGYO KK 30.03.79-JA-039192

E16 (11.10.80) C11d-07/50

Compsn. contains a halogenated hydrocarbon solvent (a) e.g. CH_2Cl_2, $CHCl_3$, 1,1- or 1,2-dichloroethane, perchloroethylene, trichlorotrifluorethane, etc., and a fluorinated alcohol (b) of formula $X(C_nF_{2n})C_mH_{2m}OH$ (x is H or F, m is 1-3, and n is 1-10), e.g. $H(CF_2CF_2)_aCH_2OH$, $H(CF_2CF(CF_3))_bCH_2OH$, $H(CF_2CF_2)_cCH(CH_3)OH$, etc., in ratio (a)/(b) of 95-30/5-70, together witha solvent, e.g. benzene, toluene, xylene, pentane, etc., a surfactant, e.g. an alkylbenzenesulphonate, etc., and a stabiliser.

Compsn. dissolves and removes solid and oily dirt and stains resulting from paints, printing inks abrasives, fluxes and other resinous substances, adhered to the surfaces of various materials, utensils, etc. 30.3.79 as 039192 (6pp117)

UNIC ★ D25 84182 C/47 ★US 4231-887

Zeolite agglomerate particles for detergent formulations - consisting of zeolite crystals in matrix of ethoxylated alcohol and sodium citrate, acts as a water softener in place of phosphate builders

UNION CARBIDE CORP 26.06.79-US-052190

(04.11.80) B01j-01/04 C11d-03/12 C11d-17/06

Zeolite-contg. agglomerate particles suitable for incorporation into detergent formulations consist of: (a) crystals of a 3-D zeolite (I) (mol. sieve type contg. ion-exchangeable alkali metal cations); contained in (b) a combined matrix of an intimate mixt. of (i) one or more ethoxylated alcohols (II) of formula $R\text{-}O\text{-}(CH_2CH_2O)_nH$ and (ii) Na citrate $2H_2O$. Wt. ratio (I) (hydrated): (II): Na citrate=100:15-50·8-25. (Where R=9-18C prim. or sec. alkyl; n = 3-12).

Prefd. (II) have n = 7-12. (I) is pref. the known Na zeolite A, or Na zeolite X, or a mixt. contg. 40-70 wt.% of each. Prefd. compsns. have wt. ratio (I):(II)·Na citrate= 100:25:12.

The (I)-contg. agglomerate when mixed with conventional laundry detergents remains uniformly distributed during packaging, shipping, and storing, but rapidly disperses in H_2O to distribute (I) throughout. 26.6.79 as 052190(7pp)

See Also

D21 US 4231903

ABBO 20.03.78 ABBOTT LABORATORIES B03 C02 D13 E13 *US 4231-924
Tri-N-benzyloxy-carbonyl-fortimicin B prepn. - 84201C/47
ABBO 01.02.79 ABBOTT LABORATORIES B04 C03 D22 F09 =FR 2447-931
Broad-spectrum antibiotic AX-127B-1 prepn. - 56904C/33
ABBO 05.02.79 ABBOTT LABORATORIES B04 D16 S03 =FR 2447-966
Determination of ligand by binding to protein - 59077C/34
ABBO 29.03.79 ABBOTT LABORATORIES B03 D22 E13 =J5 5130-968
1-Epi-fortimicin A and derivs. - 64094C/36
ABBO 29.03.79 ABBOTT LABORATORIES B03 C02 D22 E13 =J5 5130-969
2-Epi-fortimicin A and B derivs. - 73888C/42
ABBO 29.03.79 ABBOTT LABORATORIES B03 D16 =J5 5130-997
Fortimicin AN - 65926C/37
ABBO 26.09.79 ABBOTT LABORATORIES B02 C02 D22 E13 *US 4232-147
4-N-acyl:fortimicin B 1,5-carbamate derivs. - 84292C/47
ADEK 17.12.74 ADEKA ARGUS CH KK A60 D13 E19 =J8 0041-639
Antioxidant for org matls - 58759X/31
ADTA- 21.03.80 ADVANCE TAPES UK LT A96 D22 G03 (A11 A14) =GB 2046-773
Gelatinous adhesive for plasters, dressings and surgical appliances - 79316C/45
ADTA- 21.03.80 ADVANCE TAPES UK LT A96 D22 G03 (A18) =GB 2046-774
Adhesive articles for use as ostomy rings and plasters - 77474C/44
AGEN 16.05.72 AGENCY OF IND SCI TECH D17 =J8 0041-760
Fructose isolation from invert sugar - 74834V/43
AIRL 20.11.78 AIR LIQUIDE L' D15 =ZA 7906-069
Treatment of sewage and septic sludge - 38767C/22
AKAO- 30.03.79 AKAO KAISUI KAGAKU D15 *J5 5129-110
Electrodialysis of salt water - 83293C/47
AKER- 20.02.78 AKERS MEK VERKSTED D15 H01 J01 =US 4231-870
Water filter for removing microorganisms, e.g. marine algae - 63493B/35
AKRO- 04.12.78 AKRO-MEDIC ENGINEER B04 D16 J04 S03 #SW 7812-469
Detection and assay of immunological reactants - 29008C/16
ALBR 27.07.76 ALBRIGHT & WILSON LTD C04 D13 E37 (C03) =IL --52-552
Phosphate salts for use as fertilisers - 08289A/05
ALBR 04.05.79 BUSH BOAKE ALLEN LT D23 E13 *EP --18-833
Di:hydro:pyran and dioxan cpds. for perfumery compsns. - 83069C/47
ALKE/ 26.01.78 ALKEMADE A J C D13 =GB 1579-409
Brussels sprout rotary stripper with blade retraction - 60962B/33
ALKU 04.05.79 AKZO NV A88 D15 J01 (A25) =DT 2918-027
Polyurethane ultrafiltration membrane for oil sepn. from water - 65967C/38
ALKU 04.05.79 AKZO NV A88 D15 J01 (A25) =NL 8002-466
Polyurethane ultrafiltration membrane for oil sepn. from water - 65967C/38
AMBR/ 17.10.79 AMBROZ V D18 *CS 7907-028
Cation-active lubricant for chrome leathers - C/47
AMCA 12.01.79 AMERICAN CAN CO D17 E13 F09 =BR 8000-020
Continuous saccharification of cellulosic materials - 36396C/20
AMCY 25.01.74 AMERICAN CYANAMID CO B03 C02 D13 =CH -619-703
Cycloalkano/B/thienyl-urea derivs. - 52741W/32
AMCY 25.01.74 AMERICAN CYANAMID CO B03 C02 D13 =CH -619-704
Cycloalkano/B/thienyl-urea derivs. - 52741W/32
AMCY 25.01.74 AMERICAN CYANAMID CO B03 C02 D13 =CH -619-705
Cycloalkano/B/thienyl-urea derivs. - 52741W/32
AMCY 25.01.74 AMERICAN CYANAMID CO B03 C02 D13 =CH -619-949
Cycloalkano/B/thienyl-urea derivs. - 52741W/32
AMCY 28.07.76 AMERICAN CYANAMID CO A96 D22 =CH -619-616
Surgical cleaning sponge with handle shaped reservoir - 08312A/05
AMSA 06.02.79 AMERICAN STERILISER CO D22 *EP --16-887
Gas sterilisation for biocidal treatment of goods - 82930C/47
AMSA 06.02.79 AMERICAN STERILISER CO D22 =PT --70-631
Gas sterilisation for biocidal treatment of goods - 82930C/47
AMSA 06.02.79 AMERICAN STERILISER CO D22 =PT --70-632
Gas sterilisation for biocidal treatment of goods - 82930C/47
AMST- 05.06.79 AMERICAN STERILIZER D22 T06 *PT --71-137
Sterilising appts. control - C/47
ANVR 16.04.73 AGENCE NAT VALORISATION D16 (D13) =CH -619-731
Preserving oxidatively degradable material esp. foods - 74342V/43
ANVR 16.04.73 AGENCE NAT VALORISATION D16 =CH -619-981
Preserving oxidatively degradable material esp. foods - 74342V/43
ANVR 06.05.74 AGENCE NAT VALORISATION B04 C03 D16 =SU -727-112
Water-soluble extracts of corynebacteria - 75780W/46
AQUA/ 07.05.79 AQUARIUS C H D13 =EP --18-701
Packaging process for lollipop on stick - 68166B/38
ARSE- 31.01.79 ARSENE VALERE A92 B05 C03 D21 *FR 2447-681
Pyrethrin-type insecticidal lotion - 83125C/47
ASAH 30.03.79 ASAHI CHEMICAL IND KK A96 B04 D16 J01 *J5 5129-755
Filter for collecting and sampling leucocyte - 83455C/47
ASHM/ 17.12.76 ASHMEAD H H D13 =CA 1088-425
Protein hydrolysate divalent metal complex - 46144A/26
ASTR 02.04.79 ASTRA CHEM PROD AB A96 B04 C03 D22 =SW 7902-893
Iodophor containing udder disinfectant - 77575C/44
ATCH/ 08.10.76 ATCHISON C M D22 *US 4231-358
Light frame for draughtman's table - 84083C/47
AUSS/ 18.01.79 AUSSENAC J A96 D22 =BR 8000-286
Programmable appts. to clean and sterilise surgical instruments etc. - 41511C/24

BADI 29.01.75 BASF AG B05 C03 D21 E16 =CH -619-926
N-Alkyl-glycine nitriles prepn - 61708X/33
BADI 24.07.76 BASF AG C01 D22 E12 F09 =GB 1579-491
Tri:organo-tin derivs. of hydroxy-diazenium oxide(s) - 06406A/04
BADI 04.10.78 BASF AG A97 D18 =ZA 7905-262
Tanning agents comprising aldehyde condensation products - 27480C/16
*BARH/ 12.05.79 BAR H D21 E36 *DT 2919-283
Dermatological steam ozone appliance - 82821C/47
*BARI/ 06.07.79 BARIONI J R L D13 (D12) *BR 7904-296
Vegetable and/or animal extracts prodn. equipment - C/47
*BARN/ 05.05.79 BARNES R I D25 *DT 3016-707
Cleaning compsns. contg. petroleum distillate and surfactant - 82886C/47
BAXT 21.12.71 BAXTER LABS INC D12 =J4 8072-358
Meat tenderisation - 24818V/13
BAXT 21.12.71 BAXTER LABS INC D12 =J8 0041-747
Meat tenderisation - 24818V/13
*BEEC 25.03.76 BEECHAM GROUP LTD B06 D21 E33 (E34 E35) *GB 1572-164
Dental polishing paste - 83175C/47
BEHW 04.05.79 BEHRINGWERKE AG A96 B04 D16 =DT 2917-999
Dry substrate for gamma glutamyl transpeptidase determn. - 82993C/47
*BEHW 04.05.79 BEHRINGWERKE AG A96 B04 D16 *EP --18-628
Dry substrate for gamma glutamyl transpeptidase determn. - 82993C/47
BENA 20.04.79 BENZON A AS B04 D16 =PT --71-111
Purified human Le form interferon proteins - 79381C/45
BENC 27.04.79 BENCKISER-KNAPSACK D13 =EP --18-604
Skimmed milk powder and butter fat-contg. food - 81052C/46
*BERT/ 31.01.79 BERTHEAS M J D22 *FR 2447-713
Inflatable pressure bandage for promoting haemostasis - 83130C/47
*BERT/ 31.01.79 BERTHEAS M J D22 *FR 2447-716
Haemostasis tampon to follow extn. of varicose saphenous vein - 83131C/47
BESL/ 11.04.79 BESLER H C04 D16 E17 H09 (D15) =GB 2046-725
Methane produced from organic waste in fermenting vessel - 60520C/35
*BETZ 20.09.76 BETZ LABS INC D15 E11 *US 4231-894
Stabilisation of alkali metal (bi)sulphite-cobalt solns. - 84184C/47
*BIOD- 17.07.79 BIODATA SPA B04 D16 S03 *BE -884-323
Simultaneous determn. of two transaminase enzymes - 82669C/47
BIOS- 02.06.72 BIOSPHERICS INC D15 #J8 0041-829
Sewage phosphates extraction - 78320U/51
*BIOT- 26.03.79 BIOTEKNISK INST D15 J01 M25 *DK 7901-219
Removal of mercury cpds., from basic aq. liquids - C/47
BOEF 03.07.78 BOEHRINGER MANNHEIM GMBH D15 =EP --18-392
Increasing biological breakdown of toxic waste water - 03746C/03
BOEF 02.10.78 BOEHRINGER MANNHEIM GMBH B04 D16 J04 S03 =ZA 7904-814
Photometric determn. of ionic, polar or lipophilic substances in liq. - 27458C/16
*BONG- 30.01.79 GRP BONGRAIN D13 *FR 2447-682
Cheese mfr. by seeding milk or by spraying cheese - 83126C/47
*BOSC 30.04.79 ROBERT BOSCH GMBH D13 *DT 2917-555
Production of filled chewing gum - 82720C/47
BRIM 29.11.74 BRISTOL MYERS CO B03 C02 D13 =CH -619-717
3'-Deoxy-butirosin A - 44043X/24
BRIM 12.12.74 BRISTOL MYERS CO B03 C02 D13 =CH -619-733
Novel antibiotic Bu-2183 - 49994X/27
BRIM 12.10.78 BRISTOL MYERS CO A96 D21 E19 (E37) =ZA 7905-463
Thickened hair bleach compsns. with low ammonia release - 32165C/18
BRIM 02.04.79 BRISTOL MYERS CO B02 C02 D16 (D13) =NO 8000-967
Antitumour antibacterial complex BBM-928 and individual components - 73461C/42
*BRIY 26.10.78 BRISTOL BANYU KK B04 D16 *J5 5102-398
Antibacterial Bu-2349A - 83216C/47
BRPE 25.10.76 BRITISH PETROLEUM LTD D16 H05 S03 S05 (D15) =GB 1579-344
Determining toxicity of industrial effluent, esp. from refineries - 32468A/18
*BUHL 26.04.79 BUHLER GEBR AG D13 *EP --18-607
Cocoa bean kernel pre-grinding mill - 82985C/47

CARS- 08.09.72 CARSON G & W H INC D15 =J8 0041-840
Water-soluble chem. waste sludge treatment - 57627V/32
CELA 13.03.78 CELANESE CORP A88 D18 (A11 A32) =ZA 7901-181
Cellulose acetate foam cigarette filter rod - 68589B/38
*CELL/ 27.07.79 CELLER R D13 *CS 7905-229
Whey discharge from cheese prodn. equipment - C/47
*CERO/ 17.10.79 CEROVSKY J D13 *CS 7907-041
Foodstuffs extrusion and texturisation appts. - C/47
CESK 23.04.74 CESKOSLOVENSKA AKAD A14 B04 D16 J01 (A96 T07) =CH -619-971
Copolymers of N-substd. (meth)acrylamide - 75116W/45
CEVA- 12.02.79 SOC CEVA SA C03 D13 (D16) =GB 2046-567
Ensilage using added cellulase(s) - 46248C/27
CHCM 04.04.79 CHEM WERKE MUNCHEN AG D25 E12 =NO 8000-874
Prodn. of fatty acid soaps in granular form - 79208C/45

*CHEM 04.05.79 CHEM WERKE HULS AG A25 D25 E17 (A97) *EP --18-482
Dish-washing compsn. - 82943C/47
*CHEN/ 04.05.79 CHEN Z D17 *NL 7903-513
Continuous sepn. of syrup into sugar crystals and molasses - 83798C/47
CHIM- 13.04.79 CHIMICASA GMBH D17 E13 =PT --71-086
Prepn. of free-flowing fructose crystals - 32622C/18
CIBA 22.09.75 CIBA GEIGY AG D25 E19 =CA 1088-538
Conc. solns. of amphoteric fluorinated surfactants - 21822Y/13
*CIBA 14.01.76 CIBA GEIGY AG B02 C02 D13 *CH -619-698
6-Phenylthio-quinoxaline di-N-oxide derivs. - 82682C/47
CIBA 08.07.76 CIBA GEIGY AG A97 D15 J01 =CA 1088-699
Adsorbent for heavy metal ions - 04773A/03
CIBA 03.11.78 CIBA GEIGY AG A97 D15 E19 F06 (D25 F09) =ZA 7905-887
Antifoaming compsn. for aq. systems - 34613C/20
*CIBA 01.03.79 CIBA GEIGY AG A97 D25 E19 *GB 2046-778
Compsns. for cleaning lavatory bowls or urinals - 83201C/47
CIGA 02.11.76 CIGARETTE COMPONENT LTD A88 D18 =CH -619-847
Automatic cigarette filter tips production - 36882A/21
CLOU/ 08.06.76 CLOUGH G F G A88 D15 =GB 1579-623
Filtration medium for biological treatment of waste water - 88212Y/50
CNRS 13.11.75 INST NAT SANTE RECH MED B04 D16 S03 S05 =GB 1571-992
Fixtation of organic cpds. contg. sugar residues - 34450Y/20
CNRS 13.11.75 INST NAT SANTE RECH MED B04 D16 S03 S05 =GB 1571-993
Fixtation of organic cpds. contg. sugar residues - 34450Y/20
CNSM 24.06.76 CENTRALE SUIKER MIJ NV D15 =GB 1579-277
Anaerobic sewage treatment - 02580A/02
COJA- 31.03.77 COJAFEX BV D15 J01 #GB 1579-658
Multistage evaporator for desalination of seawater - 30288Y/17
COLG 26.02.76 COLGATE PALMOLIVE CO A97 D25 E17 =GB 1579-261
Free flowing nonionic detergent compsn. - 45309Y/26
COLG 26.02.76 COLGATE PALMOLIVE CO A97 D25 E17 =GB 1579-262
Free flowing nonionic detergent compsn. - 45309Y/26
COLG 22.04.76 COLGATE PALMOLIVE CO D25 =CA 1088-398
Transparent granular detergent compsns. - 59465Y/34
COLG 09.08.76 COLGATE PALMOLIVE CO D22 F04 =CH -619-600
Babys disposable napkin etc. contg. hydrocolloidal material - 90086Y/51
COLG 09.08.76 COLGATE PALMOLIVE CO D22 =CH -619-601
Disposable diaper with absorbent pad - 68424Y/38
COLG 09.08.76 COLGATE PALMOLIVE CO D22 F07 =CH -619-602
Disposable sanitary towel or diaper - 90087Y/51
COLG 28.03.77 COLGATE PALMOLIVE CO B05 D21 E11 =CA 1088-571
Long chain amine mono:fluorophosphate salts - 65315A/37
COLG 10.05.77 COLGATE PALMOLIVE CO D25 E14 (E16 E34) =GB 1579-668
Liquid detergent compsn. for cleaning hard surfaces - 67111A/38
COLG 27.03.78 COLGATE PALMOLIVE CO A96 D22 F07 =ZA 7900-993
Disposable tampon or towel - 56316B/31
COLG 27.03.78 COLGATE PALMOLIVE CO A96 D22 =ZA 7901-115
Absorbent pad for sanitary towel, disposable napkin, etc. - 69951B/39
COLG 27.03.78 COLGATE PALMOLIVE CO A96 D22 =ZA 7901-117
Mfg. absorbent pad for sanitary towel, disposable napkin, etc. - 69952B/39
COLO- 24.05.77 COLOPLAST INT A/S A96 D22 (A18) =US 4231-369
Non-irritating stoma bag sealing or closing material - 89980A/50
COMB- 20.10.78 COMBE INC A60 D21 E16 F06 =ZA 7905-474
Fibre dyeing compsn. contg. N-acetyl-ethanolamine - 14749C/09
CONN/ 22.10.75 CONNELLY R F D15 =J8 0041-344
Oxidising and bleaching discoloured nonaqueous fluids - 39129Y/22
CONO 04.05.79 CONOCO INC D25 E14 F09 =EP --18-463
Ethoxylation of alcohol(s) - 51669C/29
CONV- 15.01.79 CONVIRON INC D16 =GB 2046-782
Prodn. of nutrient substrates contg. low methoxy pectin - 48398C/28
COOP- 18.01.78 COOPERATION PHARM D13 =US 4232-054
ingestible compsn. contg. vegetable fibre and metallic proteinate - 52560B/29
CORP 23.11.78 CPC INTERNATIONAL INC D11 =ZA 7905-746
Instant macaroni mfr. - 40124C/23
*CTPT- 08.03.79 CTP CENT TECN PROMO D16 *BR 7901-407
Prodn. of alcohol from manioc - C/47

*DAIC 29.03.79 DAINICHISEIKA COLOR CHEM A96 D22 *J5 5130-662
Water-absorbing sanitary prod. mfr. - 83530C/47
DAIE 28.03.79 DAINICHI NIPPON CABLES D15 E32 M25 =J5 5128-552
Gold cyanide, and opt. silver cyanide, recovery from liquid - 73853C/42
*DAIK 30.03.79 DAIKIN KOGYO KK D25 E16 *J5 5131-099
Surface cleaning compsn. for removing paint, ink etc. - 83725C/47
DAMO- 28.03.79 DAMON CORP A96 B04 D22 =DK 8001-305
Encapsulating living tissue, protein etc. in membranes - 73451C/42
*DAZE/ 02.03.79 DE AZEVEDO J B B D21 *BR 7901-405
Cotton wool with acetone in disposable package for individual use - C/47
DCAF 10.05.77 DCA FOOD INDS INC D11 =CA 1088-368
Yeast fermentable dough contg. soft wheat flour - 88070A/49
DECI- 15.03.79 DEC INT INC D13 =GB 2046-569
Mixer pan for completing cheese processing - 70021C/40
DEER- 02.05.79 DEER PARK BAKING CO D11 =NL 8002-537
Cookie mfg. appts. with transfer conveyor - 80648C/45
DEGM 24.03.76 DEGREMONT SA D15 =CH -619-674
Reaction and decantation treatment plant for waste water - 52272Y/30
DEGS 19.03.77 DEUTSCHE GOLD & SILBER D25 E34 =GB 1579-513
Stabilised sodium percarbonate for washing powders - 67099A/38
DEGS 18.11.78 DEUTSCHE GOLD & SILBER D15 E19 J04 S03 =ZA 7906-006
Continuous measurement of ionic concns. - 40004C/23
DEGS 02.05.79 DEUTSCHE GOLD & SILBER D15 E36 J03 S03 =NL 8001-823
Measuring concn. of dissolved cpds. - 80714C/46
*DIAG- 24.11.75 DIAGNOSTIC REAGENTS B04 D16 J04 S03 *US 4231-750
Competitive binding assay - 84114C/47
DIAP- 03.07.76 DIA-PROSIM LTD A91 D15 =GB 1579-335
Removing nitrate ions from water - 04729A/03
DIAS 28.08.69 DIAMOND SHAMROCK CORP D15 E33 (D22) =J8 0042-042
Compsn for purifying water residues - 16985S/09
*DIAS 01.03.79 DIAMOND SHAMROCK EUROPE A97 D25 E19 *GB 2046-778
Compsns. for cleaning lavatory bowls or urinals - 83201C/47
*DORE/ 09.04.80 DOREY L DE A D16 *PT --71-076
Anaerobic fermentation equipment - C/47
*DOST/ 19.09.79 DOSTAL J D17 *CS 7906-309
Appts. for continuous, counter-current extraction of beet chips - C/47
DOWC 24.05.71 DOW CHEMICAL CO D21 E16 =J4 8000-511
Colour-stabilised alkanolamines - 80531T/51
DOWC 24.05.71 DOW CHEMICAL CO D21 E16 =J8 0042-065
Colour-stabilised alkanolamines - 80531T/51
*DOWC 14.12.77 DOW CHEMICAL CO A97 D22 E19 F09 *US 4232-041
Stable aq. antimicrobial halogenated amide compsn. - 84250C/47
*DOWC 22.02.79 DOW CHEMICAL CO A13 D15 J01 (A91) *US 4232-125
Di:acylamino-alkylation of a mono:vinylidene aromatic polymer - 84285C/47
*DOWC 30.04.79 DOW CHEMICAL CO D17 E36 *EP --18-621
Recovery of hydrochloric acid from a cellulose hydrolysate - 82991C/47
DOWO 01.02.79 DOW CORNING LTD A96 D21 (A26 D22) =FR 2447-718
Antiperspirant or deodorant compsn. - 59058C/34
DOWO 01.02.79 DOW CORNING CORP D24 E11 =FR 2447-963
Soap compsn. contg. silicon-modified essential alcohol perfume - 57208C/33
DOWO 01.02.79 DOW CORNING LTD D24 E11 =J5 5129-499
Soap compsn. contg. silicon-modified essential alcohol perfume - 57208C/33
DUPO 28.03.79 DU PONT DE NEMOURS CO A41 D15 E16 =J5 5129-185
Redn. of 1,4-di:chloro-2-butene levels in aq. wastes - 69427C/39

*EAGR= 13.07.78 EST AGRIC ACAD D12 (D16) *SU -727-189
Growth suppressant for undesired microflora in raw-smoked sausage - 83872C/47
EAST 10.06.76 EASTMAN KODAK CO B07 C03 D14 J04 =CA 1088-299
Coating airborne particles of food, pharmaceuticals, etc. - 88263Y/50
*EAST 25.09.78 EASTMAN KODAK CO D16 *US 4232-121
Selection of methine dyes which inhibit cell growth - 84282C/47
*ELEA/ 22.08.77 ELEAZAR Y D13 *IL --52-788
Potato chips mfr. - C/47
ELIL 25.03.76 ELI LILLY & CO B04 C03 D16 =GB 1572-114
Synergistic coccidiocidal compsns. for poultry - 68877Y/39
ELIL 01.02.79 ELI LILLY & CO B02 C02 D22 E13 =FR 2447-924
Penicillin or cephalosporin imino-halide prepn. - 60906C/35
ELIL 01.02.79 ELI LILLY & CO B02 C02 D22 E13 =FR 2447-926
Penicillin or cephalosporin imino-halide prepn. - 60906C/35
ELWI/ 14.07.77 ELWING H B B04 D16 J04 S03 (S05) =EP --18-357
Determn. of biological substances in test materials - 11892B/06
ELWI/ 14.07.77 ELWING H B B04 D16 J04 S03 (S05) =EP --18-358
Determn. of biological substances in test materials - 11892B/06
ENGE/ 02.02.78 ENGELBRECHT E D16 S03 =US 4232-120
Appts. for inoculating or transferring microbiological cultures - 60278B/33
ERLU- 17.06.76 FORSCH ERLUNDUNG FE D22 E32 H01 =SU -727-565
Control of microorganisms in stored hydrocarbon - 47895A/27
*ESSO 07.05.79 EXXON RES & ENG CO D15 E14 H05 *EP --18-852
Selective adsorption of naphthalenic Hydrocarbon s) from waste water - 83078C/47
EWOS 02.04.79 EWOS AB A96 B04 C03 D22 =NO 8000-934
Iodophor containing udder disinfectant - 77575C/44
EXCE 16.05.78 EX-CELL-O CORP D22 (D13) =EP --18-386
Prefilling sterilisation of milk containers with bactericidal aerosol - 71732B/40
EXTR- 26.01.77 EXTRACO AB D12 =CA 1088-367
Chopped fish compsns. - 55465A/31

*FABI/ 16.08.79 FABIAN J D16 *CS 7905-600
Baking yeast milk processing - C/47

FARB 31.07.76 BAYER AG D15 J02 (D16) =CA 1088-681
Injector nozzles for injecting gases into liqs. - 08349A/05
FARB 31.08.76 BAYER AG A41 D21 E17 G04 (A60 A97 D16) =CA 1088-558
Low molecular wt. poly:ol used as antifreeze and in polymer prodn. - 17987A/10
FARB 30.03.77 BAYER AG A60 D16 E17 G04 (D21) =CA 1088-523
Poly:ol, hydroxy-aldehyde and hydroxy-ketone cpds. prodn. - 74546A/42
FARB 13.07.78 BAYER AG C01 D22 E11 F09 =CS 7904-828
2-Cyclopropyl-pyrimidinyl phosphoric and phosphonic acid derivs. - 05760C/04
FARB 25.09.78 BAYER AG B05 C03 D13 =ZA 7905-053
Medicated animal feed based on liver meal - 27368C/16
FARB 13.10.78 BAYER AG C03 D22 E14 F09 =ZA 7905-459
Fungicidal wood impregnation agent - 31238C/18
FARB 09.01.79 BAYER AG C02 D16 =BR 8000-094
Antibiotic insecticide and acaricide compsns. - 51841C/30
FARB 22.03.79 BAYER AG C03 D22 E17 =J5 5129-206
Microbicidal agents for use as disinfectants - 71715C/41
FARB 05.04.79 BAYER AG B02 C02 D22 E13 =EP --18-493
Halo-, nitro- or tri:fluoromethyl-substd. 2 sulphonyl-quinoxaline(s) - 75495C/43
FARB 27.04.79 BAYER AG A14 B04 C03 D22 (D21) =EP --18-558
Solvent-free polymerisation of unsatd. carboxylic acid - 81062C/46
FARH 06.10.75 HOECHST AG A60 C01 D22 E11 =CH -619-964
Dialkylphosphine oxides prodn. from dialkyl chlorophosphines - 25267Y/15
FARH 24.07.76 HOECHST AG C03 D16 (D13) =IL --52-578
Bacterial cell mass protein source for nutrition - 08585A/05
FARH 27.07.76 HOECHST AG C03 D13 E35 =IL --52-594
Treating microbial cellular mass with ammonia and alcohol solvent - 08318A/05
FARH 23.03.79 HOECHST AG D15 #J5 5129-192
Waste water purification - 45881B/25
FARH 19.04.79 HOECHST AG C03 D13 =EP --18-534
Alkaloid and lipoid cpd. extn. from ground lupin - 80976C/46
FARH 23.04.79 HOECHST AG C03 D22 E16 (C01 E11) =EP --18-492
Aq. quat. ammonium disinfectant solns. - 80987C/46
FARH 24.04.79 HOECHST AG B02 D16 (B04) =DT 2916-433
Cephalosporin derivs. with chromophore substit. at 3-position - 79272C/45
*FAZE- 03.04.79 OY KARL FAZER AB D11 *SW 8002-510
Transporter for biscuit icing process - C/47
FELU 19.10.74 FELDMUHLE AG D15 F09 =CH -619-909
Removing biologically non-decomposable organic cpds from waste water - 32256X/18
*FERM= 15.11.77 FERMENTATION PROD D14 X25 *SU -727-191
Root-vegetable washing - 83874C/47
*FILT- 31.01.77 FILTRO SA D15 *CH -619-871
Disinfecting ion exchange resin in water treatment plant - 82685C/47
FIRM 02.08.74 FIRMENICH SA B07 C03 D23 E13 (D13) =J5 5129-217
Synthetic organoleptic oxathi(ol)anes - 13411X/08
*FIRM 08.06.76 FIRMENICH SA D13 *GB 1579-297
Prevention of flavour binding in textured protein - 83178C/47
FIRM 10.01.77 FIRMENICH SA B07 C02 D13 E13 (B03 D18) =US 4232-156
4-Acyl-pyrimidine and 2-methyl-4-acyl-pyrimidine derivs. - 51922A/29
FIRM 05.02.79 FIRMENICH SA D23 E15 =GB 2046-592
1-Ethynyl-2,2,6-tri:methyl-cyclohexanol used in perfume, etc. - 59060C/34
*FMCC 01.06.76 FMC CORP A97 D13 (A11) *US 4231-802
Prepn. of powder compsn. of difficultly dispersible materials - 84143C/47
FORE- 15.10.75 DE FORENEDE BRYGGER D16 E13 =CA 1088-440
Brewing beer of better storage stability - 12818Y/08
FRES- 05.03.79 FRESENIUS CHEM PHAR A96 D22 (A11) =GB 2046-772
Colloidal antifreeze agent of hydroxyethyl starches - 69839C/40
FREU 11.02.77 FREUDENBERG, CARL FA D21 =US 4232-123
Water soluble keratin hydrolysate prodn. - 60607A/34

*GENM 31.05.79 GENERAL MILLS INC D13 *US 4232-049
Fat-free frosting compsns. - 84254C/47
*GENM 31.05.79 GENERAL MILLS INC D13 *US 4232-053
Cooked comestible base contg. citrus vesicle solids - 84257C/47
GENO 09.03.76 GENERAL FOODS CORP C03 D13 =SU -727-111
Dog or cat food resembling liver - 47023Y/27
GENO 12.04.79 GENERAL FOODS CORP D13 E14 =GB 2046-568
Chewing gum having sweetness retention on prolonged storage - 58788C/34
*GERZ/ 28.12.77 GERZON V M D15 *SU -726-026
Natural water acidification process control - 83804C/47
GESJ 29.01.79 GENERAL SIGNAL CORP D15 =US 4231-974
Apparatus for aerating liquid esp. effluent or sewage - 64607C/37
GFCF- 02.02.77 GFC FOODS KK D23 (D16) =J8 0041-676
Chlorella extract used as an antioxidant for fatty oils - 69530A/39
GILL 22.12.75 GILLETTE CO A96 D21 =CA 1088-427
Non-irritant shampoo compsn. - 76278Y/43
GIVA 02.02.79 GIVAUDAN L & CIE SA D13 E15 (E13) =FR 2447-917
Alpha-hydroxy-3-cyclopentenone or 2(5H)-furanone derivs. prepn. - 59054C/34
GIVA 30.03.79 GIVAUDAN L & CIE SA D22 E14 =J5 5130-931
Purificn. of crude 2,4,5-tri:chlorophenol - 60456C/34
GOUP/ 02.05.79 GOUPIL J D21 E13 #DT 2917-729
8-Hydroxy quinoline deodorising agent - 81122B/45
*GREC 07.05.79 GREEN CROSS CORP B05 D13 *DT 2938-807
Parenteral nutrition fatty emulsion - 82833C/47
*GRES/ 17.07.79 GRESER E D13 G03 *CS 7904-991
Prepn. of collagen for gelatin or glue prodn. - C/47
*GRFJ 02.09.76 GRIFFITH LABS INC D13 *US 4232-047
Encapsulated food additive or flavouring - 84253C/47

*HAEG/ 08.07.80 HAEGEMAN J H D15 *BE -884-216
Aerator possibly float-supported for clarifying water - 82646C/47
*HASH/ 30.03.79 HASHIMOTO S D15 E36 *J5 5129-189
Treating fluoride and phosphate-contg. effluents - 83335C/47
HAYB 06.03.79 HAYASHIBARA SEIBUTS B03 D13 E13 (D16) =GB 2046-757
Prodn. of non-cariogenic foods, etc. - 68044C/39
*HEIL/ 14.12.76 HEILIGTAG R W D15 *US 4231-874
Waste treatment using aerobic decomposition - 84175C/47
HEIN- 17.03.79 HEIN LEHMANN AG D17 J01 =GB 2046-610
Continuously operating centrifuge for sugar extraction - 67979C/39
HENK 08.08.75 HENKEL KG AUF AKTIEN D25 E19 =CH -619-732
Washing compsn. contg. two cpds. as antifoaming agent - 09398Y/06
HENK 22.04.77 HENKEL/KG AUF AKTIEN A97 D25 E33 (A25 E19) =GB 1579-505
Phosphate free washing powder compsn. contg. aluminosilicate - 76322A/43
HENK 26.03.79 HENKEL KG AUF AKTIEN A97 D25 =DK 8000-898
Textile detergents with sizing action - 75421C/43
HENK 07.04.79 HENKEL KG AUF AKTIEN C03 D22 E17 =EP --18-504
Antimicrobial use of aldehyde cpds. - 77176C/44
*HENK 05.05.79 HENKEL KG AUF AKTIEN D23 E13 *DT 2918-168
5-Alkyl-4,6-di-oxa-tri:cyclo-dodecene derivs. - 82775C/47
*HENK 07.05.79 HENKEL KG AUF AKTIEN A97 D25 E19 (A25) *EP --18-630
Fine textile detergent having softening activity - 82995C/47
*HENR/ 12.05.79 HENRICHS H W D13 *DT 2919-199
Appts. for removal for vapour skin on steam peeled potatoes - 82819C/47
*HERI/ 13.06.79 HERIAN K D13 *CS 7904-073
Sausage-type, steamed cheese prodn. - C/47
HETO 28.06.76 AS USSR HETERO CPDS D12 =CA 1088-370
Solid particles condensed from fish roe soln. or suspension - 04701A/03
*HITA 28.03.79 HITACHI KK D15 *J5 5129-195
Expelling fungi in activated sludge treatment - 83337C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-118
Controlling operation of filter units - 83301C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-119
Controlling operation of filter units - 83302C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-120
Operating filtration unit system - 83303C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-121
Controlling filter unit operation - 83304C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-122
Operating filtration unit system - 83305C/47
*HITA 30.03.79 HITACHI KK D15 *J5 5129-123
Filter unit operation indicator - 83306C/47
HOFF 31.10.78 HOFFMANN-LA ROCHE AG D21 E13 =PT --70-393
2-Aminophenyl-benzoxazole-sulphonic acid derivs. - 46559C/27
HOFF 31.10.78 HOFFMANN-LA ROCHE AG D21 E13 =ZA 7905-690
2-Aminophenyl-benzoxazole-sulphonic acid derivs. - 46559C/27
HOIS/ 07.01.76 HOISS J D15 =CH -619-908
Crude water distillation system - 50577Y/29
HOPC 01.02.79 HOLLANDSE PLAST IND NV A97 D13 =FR 2447-677
Plastic cheese making vats - 56903C/33

*ICIL 22.05.78 ICI AUSTRALIA LTD A96 C03 D22 (A14) *ZA 7902-200
Skin depilation aq. compsn. - 84321C/47
ICIL 10.10.78 IMPERIAL CHEM INDS LTD A96 D22 F04 (A32) =ZA 7905-366
Fibre-covered prosthesis tube mfr. - 27731C/16
ICIL 05.01.79 IMPERIAL CHEM INDS LTD A14 D21 E11 (A28 A96 E36) =BR 8000-046
Dispersion of siliceous particles in organic medium - 53808C/31
IDEK 19.01.76 IDEMITSU KOSAN KK A11 B07 C03 D13 (A96 A97 D16) =J8 0042-081
Gel-forming polysaccharide prepd. by Arthrobacter cultivation - 52614Y/30
IDEK 28.03.79 IDEMITSU KOSAN KK C03 D22 E15 F06 =J5 5129-204
L-carvone as insect repellent and insecticide - 09493C/06
*INFL 20.10.78 INT FLAVORS & FRAGR INC B02 D13 E13 (D18 D21 D23) *US 4231-940
3-Hydrocarbyl-2-oxa-bi:cyclo-(2,2,2)-octane derivs. - 84209C/47
*INSE 01.02.79 INST NAT RECH CHIMIQUE C03 D16 (D13) *FR 2447-965
Fermenting plant develops mushrooms for prodn. of animal feed - 83157C/47
INTE- 04.01.79 INTERCANE SYST INC D13 =BR 8000-024
Vegetable juice extractor - 51931C/30

INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D13 =CH -619-946
Zearalanol anabolic agent prepn. - 00046Y/01
INTM 22.08.75 INT MINERALS & CHEM CORP B02 C02 D16 =CH -619-947
Recovery of zearalenone from fermentation liquors - 00047Y/01
INTT 10.02.76 ITT IND INC D11 #CH -619-841
Calorie-deficient white bread - 13329X/08
*IPTP- 12.03.79 IPT INST PESQU TECN D16 *BR 7901-546
Continuous process for alcoholic fermentation - C/47
*ISHI 27.03.79 ISHIKAWAJIMA-HARIMA HEAV D15 J01 *J5 5129-103
Device for sepn. of liquids e.g. factory waste - 83286C/47
ISHI/ 04.08.76 ISHIHARA H D23 =J8 0041-677
Sepg. rice oil e.g. dewaxed rice oil - 26051A/14
ISHI/ 04.08.76 ISHIHARA H D23 (D21) =J8 0041-678
Recovery of neutral oil, fatty acid and phenolic substance - 26120A/14
ISHI/ 17.09.76 ISHIHARA H D23 =J8 0041-679
Fractionating rice bran oil, rice germ oil or a treated deriv. - 35802A/20
ISHI/ 17.09.76 ISHIHARA H D23 =J8 0041-680
Fractionating neutral oils, fatty acids and phenolic substances - 35803A/20
ITAF 08.05.79 ITALFARMACO B04 D16 =DT 3011-334
Reactor for enzyme reactions - 65987C/38
*IWAT- 25.04.79 IWATANI SANGYO KK D21 M22 *EP --18-450
Melting and casting small metallic charges - 82938C/47

JAGN 24.12.77 JAGENBERG WERKE AG D14 S02 =CA 1088-472
Automatic dispenser of tiny doses of liq. - 31645B/17
JAPS 30.01.79 JAPAN SYNTHETIC RUBBER A18 D22 (A25 A96) =FR 2447-947
Water contg. polymer moulding compsn. - 59043C/34
*JOHJ 24.02.76 JOHNSON & JOHNSON A96 D21 E34 *CA 1088-428
Non-chilling dry powder deodorant spray - 82674C/47
JOHJ 30.11.78 JOHNSON & JOHNSON A97 D21 E11 (D25) =BR 7902-726
Detergent and cleaning compsns. esp. shampoos - 80843B/45
JOHJ 30.11.78 JOHNSON & JOHNSON A97 D21 E11 (D25) =BR 7902-727
Detergent compsns. contg. phospho-betaine(s) or phosphitaine(s) - 80844B/45
JOHJ 30.11.78 JOHNSON & JOHNSON A97 D21 E11 (D25) =US 4231-903
Detergent and cleaning compsns. esp. shampoos - 80843B/45
JOHJ 30.01.79 JOHNSON & JOHNSON A97 D22 F09 =FR 2447-715
Multilayer absorbent pad for disposable napkin, sanitary towel etc. - 63156B/35
JONE/ 09.06.76 JONES B H D18 =GB 1579-555
Processing solid tannery waste - 00442A/01

KABI 05.12.74 KABI AB B04 D16 S03 S05 =CH -619-983
Polypeptide chromogenic substrates for serine proteases - 31921X/18
KANE 08.01.73 KANEBO KK D16 F01 =J4 9092-381
Enzymatic scouring of silk material - 83743C/47
*KANE 08.01.73 KANEBO KK D16 F01 *J8 0041-325
Enzymatic scouring of silk material - 83743C/47
*KANE 28.03.79 KANEBO KK A96 D21 *J5 5129-214
Acidic emulsified cosmetic prepn. - 83346C/47
KAOS 12.09.75 KAO SOAP KK D22 E19 H08 (D21) =CH -619-612
Antiseptic and/or microbiocidal allyl alcohol cpds. - 22182Y/13
KASI/ 08.05.79 KASIDECIOGLU E D21 E17 =EP --18-668
Depilatory compsn. which does not cause allergic reactions - 09269C/06
KEIL/ 25.11.77 KEIL W A91 D15 J01 =US 4231-872
Water softening appliance - 33443B/18
KELL- 10.11.78 KELLER & BOHACEK A97 D17 (A14 A91) =ZA 7906-051
Preventing scale deposition during sugar liquor evapn. - 38400C/22
*KEND 05.12.79 KENDALL CO A14 D22 G02 (A82 A96) *BE -884-287
Clear mixts. of PVP and acrylic copolymers - 82662C/47
*KENT/ 03.05.79 KENT F M J D23 *EP --18-839
Multipart decorative candle - 83071C/47
*KHPO 11.07.77 KHARKOV POLY D23 *SU -727-679
Vegetable oil extractor - 84057C/47
KIMB 20.12.73 KIMBERLY CLARK CORP A96 D22 F04 =DS 2460-712
Flexible absorbent sanitary pads with soft edges - 33909W/20
*KLAZ/ 17.12.79 KLAZAR J D17 *CS 7908-846
Valve closure control - C/47
*KLIM/ 21.11.79 KLIMECEK R D15 *CS 7907-999
Effluent processing - C/47
*KLJA/ 16.08.79 KLJAVINJA S D16 *CS 7905-602
Nutrient for L-lysine producing strain - C/47
KNAP 23.04.79 KNAPSACK AG C03 D22 E16 (C01 E11) =EP --18-492
Aq. quat. ammonium disinfectant solns. - 80987C/46
KOCK- 29.06.76 KOCKUMS CHEM AB B05 C03 D22 (D21) =IL --52-243
Pesticides medicaments, etc., dispersed on fine support - 23655Y/14
*KONT/ 04.04.79 KONT G D22 S05 *SW 7902-983
Sterilisation unit for medical instruments - C/47
*KORB/ 11.05.79 KORBER E D12 *DT 2918-971
Sausage skin cutting machine - 82814C/47
KOWA 24.03.77 KOWA KK B03 D16 =GB 1579-312
Antibiotic KA-6606 complex from Saccharopolyspora hirsuta - 73117A/41
KOWA 16.04.79 KOWA KK B02 D16 =PT --71-091
Aza:bi:cycloheptane-carboxylic acid derivs. - 80122C/45
KUBI 14.12.78 KUBOTA KK D22 E37 L02 =DS 2854-107
Inhibiting mould growth on calcium-contg. roof cover-plate - 45267C/26
*KUCA/ 15.08.79 KUCAR S D17 E13 *CS 7905-576
D-Manno-heptulose prepn. - C/47
KUKI- 23.12.76 KUKIDENT RICHARDSON A96 D21 E36 (E16) =GB 1579-401
Water soluble tablet for cleaning dentures - 42218A/24
KURE 22.07.76 KUREHA CHEM IND KK B04 D16 =CA 1088-443
Prodn. of polysaccharide with antitumour activity - 06341A/04
KURK 24.08.78 KURITA WATER IND KK D15 =J5 5028-759
Organic waste water treatment - 83763C/47
*KURK 24.08.78 KURITA WATER IND KK D15 *J8 0041-832
Organic waste water treatment - 83763C/47
KURK 11.10.78 KURITA WATER IND KK A91 D15 (A26) =J8 0041-833
Treatment of polluted water in activated sludge treating appts. - 38904C/22
KURS 28.03.79 KURARAY KK C03 D22 E19 (C02) =GB 2046-745
Antibacterial and antiulcer farnesyl:acetamide derivs. - 71877C/41
KURS 28.03.79 KURARAY KK C03 D22 E19 (C02) =J5 5129-255
Antibacterial and antiulcer farnesyl:acetamide derivs. - 71877C/41
*KURS 28.03.79 KURARAY KK B03 D22 E13 *J5 5129-275
Piperazine-substd. farnesyl:acetic acid amide cpds. - 83374C/47
KURS 00.00.80 KURARAY KK B05 C03 D23 E17 =J5 5129-234
Unsaturated terpene ketone prepn. from substd. propargyl alcohols - 61460Y/35
KYOW 01.08.75 KYOWA HAKKO KOGYO B03 D22 (D16) =CH -619-734
Antibiotic fortimicin C - 09335Y/06
KYOW 19.08.77 KYOWA HAKKO KOGYO D13 (D16) =US 4232-044
Deodorising proteins esp. soybeans - 30699B/16
*KYOW 25.10.78 KYOWA HAKKO KOGYO KK B04 D16 *J5 5129-297
Antibiotic DC-38-B useful as an anticancer agent - 83384C/47

LAIT- 18.10.76 CENT LAITIERE NORMA D13 =GB 1572-203
Cheese raw material prepn. from milk - 30555A/17
*LENI 18.07.78 LENINGRAD LENSOVET TECH D15 (D16) *SU -727-207
Oxidising yeast hydrolysis waste in aq. effluent - 83884C/47
LEPE 07.04.79 GRUPPO LEPETIT SPA B04 D16 =PT --71-064
Antibiotic A-16686 obtd. by culturing Actinoplanes strain - 73479C/42
LEPR- 18.08.76 LEPRINO CHEESE CO D13 =CH -619-843
Pizza cheese mfr. - 16154A/09
*LIOC 27.03.79 LION DENTIFRICE KK D21 E19 *J5 5129-215
Oral compsns. e.g. tooth-paste - 83347C/47
*LIOY 03.07.78 LION FAT & OIL KK D25 E16 *J5 5129-497
Liquid detergent compsn. of excellent oil solubility - 83448C/47
*LIVE= 26.08.74 LIVESTOCK FARM MACH D14 *SU -727-223
Disc crusher for fodder and flour production - 83895C/47
*LODI- 10.05.79 GEBR LODIGE MASCH G D15 J02 *DT 2918-820
Prepn. of particulate materials for reacfion - 82810C/47
*LOIR- 27.03.79 LOIRE KESHOHIN KK D21 *J5 5129-140
Emulsifying compsn. suitable for cosmetic use - 83317C/47
*LOIR- 27.03.79 LOIRE KESHOHIN KK D21 *J5 5129-141
Emulsifying compsn. suitable for cosmetic use - 83318C/47
*LUND/ 23.04.79 LUNDSTEDT E D13 *EP --18-761
Long shelf life food prod. - 83042C/47

*MANN/ 05.10.77 MANN G F B04 D16 *US 4232-124
Plasminogen activator prodn. - 84284C/47
MARI/ 02.02.79 MARIANI N B07 D14 =GB 2046-845
Dispenser for edible cream, sauce etc. or pharmaceutical prepn. - 55233C/32
MART/ 21.10.77 MARTY D A91 D15 J01 =US 4231-864
Prepn. of water for haemodialysis for e.g. renal haemodialysis - 54961B/30
*MASU/ 24.03.79 MASUDA M D22 E33 (E34) *J5 5129-064
Deodorant for treating animal droppings etc. - 83283C/47
MATT- 31.10.78 MATTHEWS B LTD D12 =ZA 7905-663
Compact frozen meat based billet coated with fat - 38690C/22
*MATU 29.03.79 MATSUSHITA ELEC IND KK A82 D16 J04 *J5 5129-745
Enzyme electrode - 83452C/47
MCCA- 30.03.76 MCCAIN FOODS LTD D13 =GB 1579-392
Frozen chips with a layer of fat on the surface - 75404Y/42
MCGR/ 17.03.78 MCGREW J L D15 =EP --18-366
Accelerated chemical reaction at increased pressure - 79078B/43
MECC- 13.05.77 MECC DI REFFO O C03 D13 J04 =CH -619-865
Pelletiser drum quick coupling device - 84354A/47
*MEDI= 12.09.78 MED PARASITOLOGY B05 D21 *SU -727-626
Alkoxy-ethyl cyclopentanone-carboxylate - 84047C/47
*MEID 29.03.79 MEIDENSHA ELEC MFG KK D15 E36 *J5 5129-754
Determining nitrous acid ion in waste water - 83454C/47

MEIE/ 11.05.79 MEIER K D15 *DT 2919-532
Automatic system for foul sludge fermentation - 82823C/47

MEIR/ 11.11.77 MEIRI S D13 *IL --53-360
Date confiture prepn. - C/47

MELC- 04.05.79 MELCON BV D13 *NL 7903-506
Storage installation for fresh milk at prodn. point - 83797C/47

MERE 28.04.79 MERCK PATENT GMBH A96 D22 =EP --18-496
Surgical suture network used for healing bone defects - 81076C/46

MERI 28.04.75 MERCK & CO INC B05 C03 D22 E15 (D15 D21) =IL --49-437
Dicyclohex(en)yl-substd. polyamines - 86334X/46

MERI 02.09.75 MERCK & CO INC B05 C03 D22 E14 =CA 1088-569
Diphenyl-alkylene polyamine antimicrobials - 16416Y/10

MERI 02.09.75 MERCK & CO INC B05 C03 D22 E14 =IL --50-335
Diphenyl-alkylene polyamine antimicrobials - 16416Y/10

MERI 10.05.77 MERCK & CO INC D11 =CA 1088-368
Yeast fermentable dough contg. soft wheat flour - 88070A/49

MERI 15.09.77 MERCK & CO INC B02 C02 D22 E13 =US 4232-030
(N)-Methylene-thienamycin S-oxide and S-di:oxide derivs. - 26432B/14

MERI 21.03.79 MERCK & CO INC A11 D17 F09 G02 (A82) =J5 5129-432
Inhibiting starch retrogradation - 79313C/45

MERI 27.04.79 MERCK & CO INC B02 C02 D13 E13 (D22) *EP --18-595
7-Heterocyclyl:amino-cephalosporin derivs. - 82981C/47

MERI 27.04.79 MERCK & CO INC B03 C02 D16 *EP --18-901
2-Amino-2-deoxy-beta-D-gluco pyranosyl-(1-4)-2 amino-2-deoxy-D-glucose - 83096C/47

MERI 15.06.79 MERCK & CO INC B03 C02 D16 *US 4231-938
Lactone cpd. designated MSD803, obtd. by culturing Aspergillus - 84207C/47

METG 17.04.78 METALLGESELLSCHAFT AG A88 D15 =EP G004-986
Appts. for treating cooling water with hypochlorite - 79418B/44

METG 17.04.78 METALLGESELLSCHAFT AG A88 D15 =ZA 7901-347
Appts. for treating cooling water with hypochlorite - 79418B/44

MEYN/ 09.09.80 MEYN P D12 S02 #SW 8006-259
Weighing and grading fowls hanging from shackles - 02098C/02

MICH/ 27.04.79 MICHEL J D11 #DT 2917-220
Bakery scarifying decorator for top surfaces of dough pieces - 66603B/37

MINA 24.08.76 UK SEC FOR DEFENCE B04 D16 =IL --52-710
Heat-stable glycero-kinase enzyme - 18113A/10

MINN 23.03.76 MINNESOTA MINING CO D22 E37 =GB 1579-431
Solid disinfectant and/or sterilising compsn. - 72792Y/41

MINN 02.06.78 MINNESOTA MINING CO A96 D21 E11 (A14 A26) =ZA 7902-321
Oligomeric methacrylated siloxane prepolymer used in dental filler - 91399B/51

MINN 02.02.79 MINNESOTA MINING CO B04 D16 =FR 2447-964
Microbioligical tester for minimal requirement of antibiotics - 59064C/34

MINU 04.05.79 MINNESOTA UNIVERSITY B04 D16 J01 *BE -883-099
Fractional pptn. of protein(s) - 82635C/47

MITB 16.06.77 MITSUI SHIPBUILDING ENGG D16 (D13) #GB 1579-632
Single cell protein and fat mfr. by cell cultivation - 58413Y/33

MITB 16.06.77 MITSUI SHIPBUILDING ENGG D16 (D13) #GB 1579-633
Single cell protein and fat mfr. by cell cultivation - 58413Y/33

MITN 08.12.76 MITSUBISHI GAS CHEM IND A81 D13 E36 =GB 1579-460
Oxygen absorbent used as food preservative - 44357A/25

MITO 29.03.79 MITSUBISHI HEAVY IND KK D15 E36 J01 *J5 5129-191
Treatment of dithionic and poly:thionic acids in waste water - 83336C/47

MITQ 30.03.79 MITSUBISHI ELECTRIC CORP D15 *J5 5129-115
Water deaeration device for ultrasonic flaw detector - 83298C/47

MITU 29.03.79 MITSUBISHI CHEM IND KK D15 J01 (J03) *J5 5129-157
Regenerating ion-exchange resin by electrolysis - 83329C/47

MOJO 05.05.79 MOJONNIER BROS CO D16 =DT 3014-727
Water treatment process for beer product - 62039C/35

MOLN 02.02.79 MOLNLYCKE AB D22 =FR 2447-686
Throwaway baby's napkin - 57209C/33

MONS 18.11.70 MONSANTO CHEMICALS A32 D18 (A17 A88) =US 4232-130
Cigarette filter - 33877T/21

MONS 18.06.76 MONSANTO CO A97 D15 E11 M14 =CA 1088-290
Corrosion inhibitors for metals contacting water systems - 50222Y/28

MONT 02.05.79 MONTEDISON SPA A97 D25 (A14) *DT 3016-433
Stable zeolite suspension contg. acrylamide polymer - 82875C/47

MOOC 08.12.77 MO OCH DOMSJO AB D22 =US 4231-357
Dressing for high fluid secretion wounds - 47480B/26

MORA/ 25.05.79 MORAVEC J D15 *CS 7903-592
Coagulate densification and suspension sepn. during water processing - C/47

MORA/ 05.11.79 MORAVEC J D15 *CS 7907-527
Potable water contg. fluoride ions and active chlorine - C/47

MORE/ 01.04.76 MOREL P D15 E17 H09 (D16) =GB 1579-656
Fermentation of organic waste, household refuse, sewage, etc. - 52276Y/30

MOVA= 13.06.78 MOSC VACCINE SERUM D16 *SU -727-680
Microorganisms culture foam breaker - 84058C/47

NADR- 21.11.77 NAT DRYING MACHINER D11 *US 4231-470
Conveyor passing through two separate zones - 84099C/47

NASM/ 30.01.79 NASMAN J O D22 S05 (S03) =FR 2447-722
Pasteurisation autoclave - 57202C/33

*NATC 02.05.79 NCR CORP B04 D16 *EP --18-825
Rapid identification of bacteria - 83066C/47

*NATL 11.07.79 NL INDUSTRIES INC A14 D22 (A96 A97) *BE -884-265
Copolymers of (meth)acrylic acid alkyl acrylate - 82659C/47

*NATR 03.12.75 NATIONAL RES DEV CORP A97 D15 E19 J04 *GB 1579-320
Surface active polymer with pendant ionic gps. - 83180C/47

NATT 12.03.79 NAT STARCH & CHEM CORP D13 =US 4232-052
Pulverising fat-contg. foodstuff to free-flowing powder - 67991C/39

*NEEF- 22.05.75 NEEFE OPTICAL LAB A96 D22 (A11 A14) *US 4231-905
Gas permeable, dimensionally stable contact lens material - 84190C/47

*NEGI/ 29.03.79 NEGISHI S D15 *J5 5129-113
Filter element for sepg. oil from water - 83296C/47

NEST 08.12.75 SOC PROD NESTLE SA B02 D13 E13 =CH -619-845
Caffeine extn. from vegetable materil using fatty material - 36274Y/21

NEST 03.11.78 SOC PROD NESTLE SA C03 D13 =ZA 7905-693
Animal feed prodn. from coffee grounds - 35022C/20

NEST 17.11.78 SOC PROD NESTLE SA A88 D22 =ZA 7905-931
Pipe fitting for sterilising fluids - 43643C/25

NEST 16.01.79 SOC PROD NESTLE SA B04 D21 =GB 2046-591
Topical preparations with a healing and protective effect - 53712C/31

*NEWM/ 17.11.78 NEWMAN F J D18 *ZA 7905-809
Appts. for shearing, crutching and wigging sheep - C/47

NICA 14.03.79 NIPPON CARBIDE KOGY KK A97 D16 #BR 7901-585
Algae propagation - 50002B/27

NIEU/ 03.05.76 NIEUWENHUIS G J D15 J01 =CH -619-860
Removing impurities from aq. or non-aq. liquids - 79337Y/45

NISP 27.12.77 NISSIN SHOKUHIN KAISHA D11 =DS 2856-195
Noodle dough paste - 49447B/27

NISW 27.12.77 NISSHIN OIL MILLS KK D23 =J5 4088-904
Purifying palm oil - 83759C/47

*NISW 27.12.77 NISSHIN OIL MILLS KK D23 *J8 0041-720
Purifying palm oil - 83759C/47

*NITL 27.03.79 NITTO ELECTRIC IND KK D15 (D22) *J5 5129-104
Sterilisation of sepn. appts. having tubular membranes - 83287C/47

*NITL 28.03.79 NITTO ELECTRIC IND KK D15 H07 J01 *J5 5129-106
Agent for washing membranes - 83289C/47

*NITL 28.03.79 NITTO ELECTRIC IND KK D15 E37 *J5 5129-107
Washing process for selectively permeable membrane - 83290C/47

*NITL 28.03.79 NITTO ELECTRIC IND KK A88 D15 J01 (A18 A35) *J5 5129-108
Prepn. of tube-type permeable membrane - 83291C/47

*NITL 28.03.79 NITTO ELECTRIC IND KK A88 D15 J01 (A18 A35) *J5 5129-109
Semipermeable membrane - 83292C/47

*NITL 28.03.79 NITTO ELECTRIC IND KK A88 D15 J01 (A18 A35) *J5 5129-111
Tubular, permeable plastics membrane prodn. - 83294C/47

*NITL 29.03.79 NITTO ELECTRIC IND KK A88 D15 J01 (A18 A35) *J5 5129-112
Permeable membrane prodn. - 83295C/47

*NITL 29.03.79 NITTO ELECTRIC IND KK D15 *J5 5129-114
Treating oil and metal (ion)-contg. waste water - 83297C/47

NITW 08.07.75 NITTETSU MINING KK D15 M11 =J8 0041-319
Processing spent oxalate electrolyte from aluminium anodising bath - 15493Y/09

NKKA 28.08.78 NIKKI KAGAKU KK D23 E19 J04 =J8 0041-815
Copper-aluminium oxide hydrogenation catalyst mfr. - 28180C/16

NMHB 19.04.79 NORDISCH MASCH R BAADER D12 #GB 2046-578
Fish filleting machine - 69556C/39

NOUN 02.04.79 NORTHWESTERN UNIV D22 =SW 8002-434
Maintaining bacterial sterility in urine collection bags - 58767C/34

NOVE- 26.03.79 NOVEX TALALMANYFEJL D15 J01 =GB 2046-609
Separator for liq. systems - 71801C/41

NOXE- 17.10.75 NOXELL CORP B05 D21 =CA 1088-429
Dental prepns. for plaque prevention - 31267Y/18

*NPDC 10.07.79 NATIONAL PATENT DEV CORP A96 D22 *ZA 7903-825
Treatment of wound, esp. burned tissue - C/47

OAKE- 10.03.78 E T OAKES LTD A31 D14 J02 =US 4231-666
Mixer having concentric rings of axial mixing elements - 52580B/29

OCEA- 19.09.75 OCEAN ECOLOGY LTD D15 H03 =DS 2641-830
Recovery of pollutants from water - 07602Y/05

*OHIR/ 30.03.79 OHIRA A D22 G04 *J5 5130-660
Stomach warming compsn. - 83529C/47

OKAM- 22.05.75 OKAMOTO KK D22 E13 F06 =J8 0042-184
Textile prods. with resistance to germs, mildew - 02999Y/02

*OLIN 30.08.78 OLIN CORP D18 E12 F09 (E33 E34) *US 4231-377
Wrapper for smoking articles - 84087C/47

*OLVE- 09.03.79 OLVEBRA IND COM SA D13 *BR 7901-541
Prodn. of soya extract - C/47

*OLVE- 09.03.79 OLVEBRA IND COM SA D13 *BR 7901-542
Prodn. of soya cpd. - C/47

*OLVE- 09.03.79 OLVEBRA IND COM SA D13 *BR 7901-543
Prodn. of soya extract in powder form - C/47

*OLVE- 09.03.79 OLVEBRA IND COM SA D13 *BR 7901-544
Prodn. of protein cpd. from soya in powder form - C/47

OLYU 02.03.77 OLYMPUS OPTICAL KK A88 D16 =US 4231-403
Fluid feed device for automatic incubator - 65664A/37
OREA 30.11.73 L'OREAL SA A96 D21 =CH -619-613
Hair-conditioning agents - 39724W/24
OREA 29.07.76 L'OREAL SA A96 D21 (A14) =GB 1579-647
Polymers absorbing ultraviolet radiation - 82954Y/47
OREA 05.02.79 L'OREAL SA D22 =FR 2447-714
Female sanitary bandage - 57222C/33
OREA 26.04.79 L'OREAL SA D21 E24 =PT --71-149
Substd. meta-phenylene di:amine cpds. - 78918C/45
*OREA 04.05.79 L'OREAL SA A96 D21 (A14) *BE -883-107
Modifying cosmetic oils by grafting with specified hydrophilic monomer - 82639C/47
*ORIO- 30.04.79 ORION-YHTYMA OY B04 D16 J04 S03 *DT 3016-391
Enzyme immunity determn. e.g. in testosterone deter. - 82874C/47
*ORTH 26.04.79 ORTHO PHARM CORP B04 D16 S03 (S05) *EP --18-794
Mono:clonal antibody to human helper T cells - 83054C/47
*ORTH 26.04.79 ORTHO PHARM CORP B04 D16 S03 (S05) *EP --18-795
Mono:clonal antibody produced by hybrid cell line - 83055C/47

PANL- 10.06.76 PANLABS INC B02 C02 D16 (D13) =CA 1088-441
Neoviridogriseins, antibiotic cyclic peptides - 88260Y/50
PERS 26.03.73 PERSONAL PRODUCTS CO A11 D22 F09 (A96) #J5 5130-663
Water-insol carboxyalkylated cellulosic - 77227U/50
PERS 06.10.78 PERSONAL PRODUCTS CO A96 D22 F07 (A11) =PT --70-281
Thin absorbent prod., esp. sanitary towel - 29649C/17
*PETE/ 13.08.79 PETERKA V D25 E19 *CS 7908-685
Surfactant based on salt of sulpho:succinic acid ester - C/47
*PETE/ 13.08.79 PETERKA V D25 E19 *CS 7908-686
Liq. surfactants based on sulpho-succinate - C/47
PEUS/ 29.01.79 PEUSER M F D15 J01 M11 =SW 8006-649
Effluent treatment of electroplating baths - 43314C/25
PFIZ 15.06.76 PFIZER INC B03 C02 D22 E13 (D15 T05) =SW 8003-393
Antibacterial and growth-promoting quinoxaline 1,4)-dioxide derivs. - 00365A/01
PITM 17.08.76 PITMAN-MOORE INC B04 C03 D16 S03 (S05) =CA 1088-420
Immunological compsn. for detecting bovine leukaemia virus - 87755A/48
PLAC 06.08.74 MAX PLANCK GES WISSENSCH B05 D13 E11 =CH -619-962
Synthetic alkyl esters of phosphatidic acids - 14895X/09
POLA 20.04.76 POLAK'S FRUTAL WORKS INC D23 E14 =IL --51-908
Hexamethyl-indane-(6)-nitrile perfume additive - 30724Y/17
PROC 04.12.74 PROCTER & GAMBLE CO D13 =CA 1088-366
Bright extractable ground roasted coffee flakes - 46431X/25
PROC 03.03.75 PROCTER & GAMBLE CO B05 D16 =CH -619-929
Optically pure N-acyl-L-methionines - 49824X/26
PROC 12.02.76 PROCTER & GAMBLE CO B05 D13 =GB 1579-241
Compsn. for treating hypercholesteroemia or hyperlipidemia - 10827Y/06
PROC 29.04.76 PROCTER & GAMBLE CO A96 D21 E33 (E19) =GB 1572-116
Antiperspirant cream resisting syneresis - 77546Y/44
PROC 24.05.76 PROCTER & GAMBLE CO D13 =GB 1579-266
Potato chips or crisps from rapidly dehydrated potato - 84686Y/48
PROC 27.07.76 PROCTER & GAMBLE CO A97 D25 E19 (A25) =GB 1579-689
Liquid detergent compsn. for dish washing - 08317A/05
PROC 08.02.79 PROCTER & GAMBLE CO D21 E17 =J5 5129-216
Skin conditioner to prevent loss of moisture - 60881C/35
PROC 09.02.79 PROCTER & GAMBLE CO B05 C01 D22 E12 =J5 5129-205
Rare earth metal-surfactant cpds. - 79281C/45
*PROC 18.04.79 PROCTER & GAMBLE CO D22 E19 *EP --18-679
Solid, water dispersible compsn. for toilet bowl dispensing - 83011C/47
*PROC 04.05.79 PROCTER & GAMBLE CO D22 *EP --18-684
Plastic faced disposable absorbent fabric for diapers bandages etc. - 83015C/47
*PROC 18.06.79 PROCTER & GAMBLE CO D22 E14 *US 4231-370
Disposable diaper with wetness indicator - 84085C/47
*PROC- 22.10.75 PROCESS EVALUATION D17 F01 (F09) *US 4231-136
De-pithing fibrous vegetable materials - 84068C/47
*PROC- 04.03.79 PROCESS ENG CO D15 *CH -619-675
Multistage biological treatment for industrial wastes - 82680C/47
PURD 27.02.78 PURDUE RESEARCH FOUNDATI A97 D16 J01 =ZA 7900-940
Dialysis compsn. for blood purification in artificial kidney - 63170B/35

*QUAK 23.02.76 QUAKER OATS CO C03 D13 *GB 1579-324
Gelled pet food of intermediate moisture content - 83182C/47
QUIM- 30.08.78 QUIMICA MILEN SA A97 D25 E13 =EP --18-407
Non-pollutant, phosphate-free detergent compsn. - 23722C/13

*RALS 10.07.80 RALSTON PURINA CO D13 (D12) *BE -884-264
Prodn. of dried granulated protein gel, pref. soya - 82658C/47
*RAYE/ 01.02.79 RAYER F D15 J01 *FR 2448-001
Purificn. of polluted water partic. to remove fuel oil - 83164C/47
RESE- 21.04.77 RESERVE SYNTHETIC F D16 #GB 1579-628
Testing and regulating gas producing rubbish dumps - 61264Y/35
*RETR/ 11.12.78 RETRUM R D13 *US 4231-926
Continuous hydrolysis of keratin-contg. material - 84203C/47
RGBL- 19.12.78 RGB LABS INC A97 D13 (A26) =ZA 7905-740
Dried solid particles of liq. fat encapsulated in carbohydrate matrix - 46673C/27
RHEE 03.07.78 RHEEM MFG CO D12 =BR 7903-125
Device for feeding ribbon of sausage clip loops - 02227C/02
RHON 31.07.75 RHONE-POULENC INDUSTRIES D15 E33 =DS 2634-126
Aluminium hydroxy chloride compsn. esp. for treating soft water - 09311Y/06
RHON 11.05.76 RHONE-POULENC INDUSTRIES A97 D25 (A26) =CH -619-621
Stable antifoaming powder compsn. for washing powders etc. - 81217Y/46
RHON 29.09.78 RHONE-POULENC INDUSTRIES D13 E36 =ZA 7905-169
Sulphate-free phosphoric acid prodn. of food use - 25701C/15
RHON 18.04.79 RHONE-POULENC INDUSTRIES B04 D16 =GB 2046-759
Immunostimulant 41200RP - 77067C/44
RHON 18.04.79 RHONE-POULENC INDUSTRIES B04 D16 =PT --71-107
Immunostimulant 41200RP - 77067C/44
*ROCH/ 31.01.79 ROCHE J M D14 *FR 2447-676
Manual harvester for ground level nuts etc. - 83123C/47
ROHG 23.03.79 ROHM GMBH D18 =J5 5131-100
Liming of hides and skins - 71735C/41
*ROHG 28.04.79 ROHM GMBH D18 *DT 2917-376
Simultaneous swelling and unhairing of hides - 82713C/47
ROHM 19.09.78 ROHM & HAAS CO D17 =ZA 7904-958
Treating sugar soln. with sub-microscopic ion exchange resin - 27719C/16
ROHM 19.09.78 ROHM & HAAS CO A91 B04 D15 J01 =ZA 7904-959
Ion exchange process using emulsion of sub microscopic resin beads - 20178C/11
ROHM 19.09.78 ROHM & HAAS CO A91 B07 D15 J01 (D13 D17) =ZA 7904-960
Ion exchange resin floc - 25823C/15
ROHM 19.09.78 ROHM & HAAS CO A91 B07 D15 J01 (A13 A14 D13 D17) =ZA 7904-961
Prepn. of sub-microscopic particles of cation exchange resin - 25824C/15
ROHM 19.09.78 ROHM & HAAS CO A91 B07 D15 J01 (A13 A14 D13 D17) =ZA 7904-962
Sub-microscopic particles of anion exchange resin - 25825C/15
ROHM 22.01.79 ROHM & HAAS CO A14 D15 (A97) =BR 8000-357
Low molecular, water soluble polymer prepn. - 57362C/33
ROQF 16.03.79 ROQUETTE FRERES SA B05 D13 E17 =GB 2046-743
Sorbitol compressed products e.g. tablets - 70061C/40
RORE 30.03.79 RORER W H INC A96 D21 #DK 7901-306
Aq. pharmaceutical detergent compsn. - 29676B/15
RORE 02.04.79 RORER W H INC A96 D21 #NO 7901-087
Aq. pharmaceutical detergent compsn. - 29676B/15
RORE 02.04.79 RORER W H INC A96 D21 #SW 7902-904
Aq. pharmaceutical detergent compsn. - 29676B/15
ROUS 20.04.76 ROUSSEL UCLAF D13 =CA 1088-365
Dietary food product op honeycombed structure - 75872Y/43
ROUS 16.08.78 ROUSSEL UCLAF B01 D21 =US 4232-015
11-Hydroxy-17-alpha alkynyl-17-beta acyloxy steroid derivs. - 14738C/09
RUMO- 11.02.77 RUM/O/HM GMBH D21 =US 4232-123
Water soluble keratin hydrolysate prodn. - 60607A/34

SAKB 17.07.75 OTSUKA KAGAKU YAKUHIN D23 E13 (D13) =CH -619-700
Preparing 3-hydroxy 4-oxo 4H-pyran and its 2 alkyl derivatives - 90656X/49
SAKB 12.08.77 OTSUKA KAGAKU YAKUHIN D23 E15 =DS 2824-843
Cyclopentanol derivs. - 14431B/08
SALA- 31.03.78 SALA INT AB D15 J02 =EP --18-367
Apparatus for dissolving gases in liquid - 82521B/45
*SALV/ 16.10.79 SALVET M D16 *CS 7907-007
Gelled materials perforator - C/47
SAND- 06.12.77 SANDERSON & SONS SP D14 =IL --55-761
Press for extracting juices and volatile oils from whole fruit - 44241B/24
*SANN 30.03.79 SANYO CHEM IND LTD A97 D25 (A25) *J5 5131-098
Fragrant detergent compsn. for flush toilets, etc. - 83724C/47
SANO 00.00.79 SANDOZ AG B03 D16 =CH -619-735
(Dihydro)cyclosporin C immunosuppressant and antiarhtritic prepn. - 32745Y/19
*SANW 30.03.79 SANWA KAGAKU KENKYUSHO A96 D22 *J5 5129-057
Thermogenic adhesive sheet for healing skin - 83282C/47
SANY 10.04.75 SANKYO KK A97 B04 D16 =CH -619-716
Broad spectrum antibiotic 3008B prepn. - 82320X/44
SANY 20.02.79 SANKYO KK B03 D16 =GB 2046-737
Hypocholesterolaemic agent monacoline K - 62276C/36
SAOC 10.06.76 SANRAKU-OCEAN CO B02 C02 D16 (D13) =CA 1088-441
Neoviridogriseins, antibiotic cyclic peptides - 88260Y/50
SCHA/ 23.03.78 SCHATTNER R I D22 E19 #CA 1088-419
Ambient sterilising compsn. contg. glutaraldehyde and phenol 72737A/41
*SCHE 02.02.77 SCHERING CORP B03 C02 D16 *US 4232-006
Combating fungal infections in mammals - 84238C/47
*SCHE 07.07.78 SCHERING CORP B03 C02 D22 E13 *US 4231-945
S-5-Azido-methyl-2-alkoxy-tetra:hydro-furan(s) - 84213C/47

CHE/ 02.02.79 SCHELLENS A B07 D14 =FR 2447-874
Dispenser for edible cream, sauce etc. or pharmaceutical prepn. - 55233C/32

CHL- 22.03.77 SCHLATTER H A AG D15 H05 J01 =CH -619-911
Decontaminating organically polluted soil and underground water - 53525A/30

CHM- 07.04.79 SCHMIDDING W GMBH D23 E17 =GB 2046-606
Deodorising and/or deacidifying high-boiling organic liq. - 77177C/44

CHR- 16.04.79 SCHREIBER CHEESE L D13 *GB 2046-571
Appts. for producing large cheese blocks - 83190C/47

CKH 00.00.73 SCHRODER & CO D11 *DT 2918-167
Continuous dough prodn. from cooled oil-water emulsion - 82774C/47

CMZ 29.07.77 SCM CORP A97 D13 *US 4232-050
Imitation acid-set mozzarella cheese - 84255C/47

SEAR 02.04.79 SEARLE G D & CO B04 D16 =SW 8002-475
Synthetic influenza gene prodn. - 73458C/42

SEMI- 05.02.75 SEMINA SERV MILCH D13 =CH -619-844
Maturing cheeses surface treated with sprayed liquid - 39986X/22

SETR- 08.05.79 SETRIC SOC ETUD TEC D16 *EP --18-917
Accelerating growth of micro:organisms in solid culture medium - 83099C/47

SHEL 03.05.79 SHELL INT RES MIJ BV A25 D25 E17 (A97) *EP --18-681
Mild oxidation of alkoxy:alcohol(s) to alkoxy:acid(s) - 83013C/47

SHIF 30.03.79 SHINMEIWA IND KK D15 *J5 5129-117
Sludge dewatering device - 83300C/47

SHIS 30.03.79 SHISEIDO KK A96 D21 *J5 5130-906
Poly:ionic complex cosmetic - 83626C/47

SMIN 17.11.78 SMITH & NEPHEW LTD A96 D22 =ZA 7906-091
Liq. impervious sheet for covering wounds - 38715C/22

SNAM 23.12.76 SNAMPROGETTI SPA A32 B04 D16 F01 (A18 A28 A94) =GB 1572-196
Porous fibre prepn. from polymer soln. or melt - 45860A/26

SQUI 04.08.72 SQUIBB E R & SONS INC B02 C02 D22 =CA 1088-518
Cyano-methylthio-acetamido-cephalosporanic acids - 11360V/07

STAD 30.10.70 STANDARD OIL CO (IND) D16 =J8 0041-755
Single cell protein - 31270T/20

STAD 24.02.76 STANDARD OIL CO (IND) D13 (D12) #SU -727-110
Meat, poultry and fish analogues prodn. - 16794X/09

STAE- 04.05.79 FA STAEDTLER J S D25 *DT 2918-049
Stain remover based on aq. alcohol - 82765C/47

STAE/ 27.03.79 STAEHLER T D15 =DK 8001-223
Sewage aeration basin with revolving drum - C/46

STAH/ 27.03.79 STAHLER T D15 =PT --71-009
Sewage aeration basin with revolving drum - C/46

STAL 26.02.76 STALEY A E MFG CO D17 E13 (D16) =CA 1088-442
Isomerising dextrose to fructose using glucose isomerase - 61188Y/35

STAU 28.06.76 STAUFFER CHEMICAL CO D13 *CA 1088-364
Milk solids substitute replacer for caramel mfr. - 82673C/47

STBR 06.10.77 STANDARD BRANDS INC D16 *US 4232-045
Prepn. of free-flowing particulate bulk baker's yeast - 84252C/47

STOE- 30.08.76 STOELTING INC D13 *US 4232-051
Whey removal from cheese curds - 84256C/47

SUKI- 29.03.79 SUKIMOTO KAGAKU KEN D15 J01 *J5 5129-125
Filter medium prodn. - 83307C/47

SULZ 04.03.76 GEBRUDER SULZER AG D15 J01 =CH -619-861
Intensification of flushing out process in granular filters - 65192Y/37

SULZ 03.04.78 SULZER BROTHERS LTD D16 =US 4231-862
Activated sludge preservation - 73792B/41

SUMQ 29.03.79 SUMITOMO METAL IND KK D15 *J5 5129-188
Treating dust contg. water - 83334C/47

SUTP/ 26.04.79 SUTPHIN E M D15 *US 4231-863
Aerobic treatment of waste water - 84168C/47

SWIG/ 06.09.77 SWIGGER M P D15 *US 4231-873
Underwater liq. containment system - 84174C/47

SYNT 10.04.79 SYNTEX (USA) CO A96 B04 D16 *EP --18-731
Macromolecular cpds. useful as glycosidase substrates - 83031C/47

AKE 28.01.72 TAKEDA CHEMICAL IND KK B01 D16 =J8 0041-756
Fermentative prodn of ergosterol or its esters - 45774U/33

AKE 02.02.79 TAKEDA CHEMICAL IND KK B04 D16 =DT 3003-359
Antibiotics C-14482 B1, B2 and B3 - 59850C/34

AKE 02.02.79 TAKEDA CHEMICAL IND KK B04 D16 (B02) =FR 2447-922
Antibiotic c-19393 S2 or H2 - 59851C/34

AKE 02.02.79 TAKEDA CHEMICAL IND KK B04 D16 =FR 2447-932
Antibiotics C-14482 B1, B2 and B3 - 59850C/34

AKE 29.03.79 TAKEDA CHEMICAL IND KK D22 E14 *J5 5130-904
Industrial germicide compsn. with low toxicity - 83624C/47

AKE 02.04.79 TAKEDA CHEMICAL IND KK B04 D16 *J5 5130-993
Hypha elongation controlling factor - 83663C/47

AKS 26.02.79 TAKASAGO PERFUMERY KK A60 D23 E17 =GB 2046-735
Prepn. of brassylic acid di:ester and precursor - 62780C/36

ECD 31.01.79 TECHNICON INSTRUMEN B04 D16 S03 (S05) =FR 2448-52
Disc electrophoretic method for immunochemical reactions - 57193C/33

EHE 02.05.79 TEIJIN HERCULES CHE KK A41 D13 E14 *EP --18-433
High yield aromatic carboxylic acid prodn. - 82936C/47

*TEIJ 02.04.79 TEIJIN KK A96 D21 (A14) *J5 5130-907
Eye liner compsn. - 83627C/47

*TEIJ 24.04.79 TEIJIN KK A23 B04 D16 F01 (A94 A96) *EP --18-523
Aromatic polyamide core in sheath fibre - 82955C/47

TEIN- 10.08.77 CENT TECH INTERPROF OLIG D14 =CA 1088-395
Centrifugal disc husking machine for small seeds, e.g. rapeseed - 09971B/06

TENS- 25.04.75 TENSEI SUISAN KK D12 =SU -727-109
Protein extract prepn. from whole untreated fish - 13306Y/08

TENU/ 20.05.77 TENUTA A A92 D13 #GB 1579-536
Deep freezing tomatoes - 88294Y/50

*TEPR- 08.01.79 TE-PRO A/S D15 *NO 7900-050
Liq. sewage treating plant - C/47

TETR 08.10.75 TETRA PAK DEV SA A35 D22 (A92) =CH -619-617
Sterilising plastic packaging material surfaces - 07773Y/05

*TEXC 09.05.79 TEXACO INC A97 D22 E14 H01 *US 4231-426
Stabilised tracer fluids for sec. oil recovery - 84092C/47

*TEXR= 05.09.78 TEXRYBPROM D12 *SU -727-190
Cascade fish-separator for removal of water - 83873C/47

THOM/ 31.03.78 THOMASCHKI C D16 =DS 2813-867
Hops feed for brewing copper - 73768B/41

TILB/ 20.12.67 TILBY S E D17 =DS 1816-117
Removal of pith from sugar cane stems - 90901R/49

*TOAE- 29.03.79 TOHO AEN KK D15 *J5 5129-198
Lowering COD of high protein content waste water - 83338C/47

TOKE- 17.11.77 TOKYO EIZAI LAB KK A96 D22 (A23) =US 4231-356
Surgical immobilising bandage of good mouldability - 41104B/22

*TOME/ 16.05.79 TOMEK L D18 *CS 7903-348
Leather thermal treatment appts. - C/47

TOMK/ 06.04.79 TOMKO B C03 D13 =GB 2046-570
Prodn. of phosphorus- and nitrogen-contg. animal feed additives - 76328C/43

*TOWA- 29.03.79 TOWA GIKEN KK A96 D21 *J5 5129-049
Resin jacket dental cover mfr. - 83281C/47

*UCRY= 01.04.77 UKR CRYOG BIOL MEDI D22 X27 *SU -726-393
Programmed freezing of biological objects - 83842C/47

*UEHA/ 30.03.79 UEHARA M D25 *J5 5129-498
Acid activation of chlorine-based bleaching agent - 83449C/47

UETI- 25.08.75 CHEM FAB UETIKON D15 J01 =CH -619-910
Phosphate separation from aq. solns. - 16636Y/10

UGIN 20.04.79 PROD CHIM UGINE KUHLMANN C03 D13 =PT --71-114
Animal feedstuffs in block or agglomerate form e.g. salt licks - 77338C/44

UHDE 03.02.79 UHDE F GMBH D15 =FR 2447-888
Fluorine-contg. waste water processing - 57074C/33

UNIC 15.07.74 UNION CARBIDE CORP D15 E35 =DS 2531-338
Removing ammonium ions from water - 13330X/08

UNIC 24.08.76 UNION CARBIDE CORP A14 C03 D22 L03 (X16) =IL --52-806
Insol. poly:electrolyte hydrogel from acrylate salt and acrylamide - 18104A/10

UNIC 23.12.76 UNION CARBIDE CORP A92 D12 =CH -619-641
Tubular wrapper for food prods. esp. sausages - 45823A/26

UNIC 03.08.77 UNION CARBIDE CORP A14 C03 D22 L03 (X16) =CA 1088-459
Insol. poly:electrolyte hydrogel from acrylate salt and acrylamide - 18104A/10

*UNIC 26.06.79 UNION CARBIDE CORP D25 *US 4231-887
Zeolite agglomerate particles for detergent formulations - 84182C/47

*UNII 30.04.79 UNIV OF ILLINOIS B04 C03 D16 S03 (X25) *EP --18-579
Water-soluble antigen specific for Babesia parasites - 82971C/47

*UNII 30.04.79 UNIV OF ILLINOIS B04 C03 D16 S03 *EP --18-580
propagation of Babesia and haemotropic parasites - 82972C/47

UNII 30.04.79 UNIV OF ILLINOIS B04 C03 D16 S03 (X25) =PT --71-169
Water-soluble antigen specific for Babesia parasites - 82971C/47

UNII 30.04.79 UNIV OF ILLINOIS B04 C03 D16 S03 =PT --71-170
propagation of Babesia and haemotropic parasites - 82972C/47

UNIL 26.03.75 UNILEVER NV A92 D11 =CH -619-842
Prepn of cooked food prods in packages - 75689X/41

UNIL 18.06.76 UNILEVER LTD D13 (D16) =CA 1088-369
Cheese by membrane filtration of milk then fermenting concentrate - 90017Y/51

UNIL 01.03.78 LEVER BROTHERS CO A96 D21 E17 (A25 E14) =US 4231-904
Toilet soap bar based on acyl isethionate - 66591B/37

UNIL 02.03.78 UNILEVER NV D25 E33 =ZA 7900-972
Sodium aluminosilicate aq. suspension for detergent mfr. - 63167B/35

UNIL 13.03.78 UNILEVER NV D13 =ZA 7901-151
Spray stencilling design on food prod. esp. ice cream - 68123B/38

UNIL 20.03.78 UNILEVER NV D21 E19 =ZA 7901-281
Deodorant non-germicidal toilet soap tablet - 69929B/39

UNIL 30.01.79 UNILEVER NV A97 C03 D13 #FR 2447-683
Granulation of foodstuff esp. for fish - 58008B/32

UNIL 30.01.79 UNILEVER NV A97 C03 D13 #FR 2447-684
Foodstuff for very small fish - 58009B/32

*UNIL 27.03.79 UNILEVER NV A96 D21 E19 *EP --18-717
Aq. shampoo providing good conditioning effects - 83027C/47
*UNIL 20.04.79 UNILEVER NV A97 D25 *EP --18-678
Efficient bleach prod. for use in washing machines - 83010C/47
UNIL 30.04.79 UNILEVER NV D14 #DT 2917-453
Roller impeller extrusion press - 65101B/36
UNIV 16.10.78 KANSAS STATE UNIV R C03 D13 =US 4232-046
Liq. starch and non-protein nitrogen contg. ruminant feed supplement - 46876C/27
UNIX 27.02.76 UNISEARCH LTD D15 =IL --51-495
Aerobic biological purification of fluid wastes - 63354Y/36
UPJO [illegible] UPJOHN CO B03 D22 E13 F09 =US 4232-148
Antibacterial deoxy-neamine derivs. and precursors - 22298B/12
*URAL= 08.08.78 URALS VNIIKHIMPROEK A96 D21 E34 (E14 E17) *SU -727-196
Perfumed bath salts compsn. - 83876C/47
*USSI 12.10.78 US SEC OF INTERIOR D15 *US 4231-865
Reverse osmosis process with membrane backwashing - 84169C/47
*UYBE- 10.05.79 BEN-GURION UNIV NEG D13 *DT 2918-899
Powder compsns. for prodn. of acidulated milk prods. - 82813C/47
UYWA- 30.01.79 UNLV OF WATERLOO C03 D13 =BR 8000-274
Proteinaceous feed materials prodn. for animals - 64805C/37

*VACO/ 26.11.79 VACOVA T D13 *CS 7905-642
Milk fat emulsification - C/47
*VAND/ 17.04.79 VANDERMEULEN P F G D14 *EP --18-441
Hopper mixer esp. for animal feed contg. wet maize etc. - 82937C/47
VERD- 30.03.79 VERDUGT BV C01 D13 E12 (D11) =GB 2046-748
Alkali metal and calcium carboxylate salts mixt. - 73841C/42
VERE 20.03.76 VER PAPIERW SCHICKEDANZ A97 D25 E14 F06 (A87 A91) =DS 2611-880
Cleansing cloth contg. detergent - 70901Y/40
VERE 04.06.76 VER PAPIERW SCHICKEDANZ A35 D22 F07 (A96) =GB 1579-269
Absorbent body with fibrous sheath contg. plastic particles - 25324Y/15
*VESE/ 24.09.79 VESELY J D13 *CS 7906-456
Odour elimination from heat treated materials - C/47
VNIE= 28.06.76 VNIEKIPRODMASH D12 =CA 1088-370
Solid particles condensed from fish roe soln. or suspension - 04701A/03
*VOLG= 18.09.78 VOLGODONSK SURFACTA D18 E17 *SU -727-623
Higher fatty acids methyl ester mixt. prepn. - 84044C/47

WALL- 30.07.76 WALLACE H G LTD A92 D22 (A96) =GB 1579-425
Sterilisable package for surgical instrument etc. - 08368A/05
*WATE- 19.03.79 WATER REFINING CO D15 J01 *GB 2046-621
Convertible dual container storage system - 83195C/47
WEBB/ 06.04.78 WEBB W G D15 J02 =EP --18-374
Apparatus for adding gas to liquid - 85915B/47
WEBE- 16.01.79 WEBER W ING GMBH D15 =SW 8006-491
Biological purificn. of waste water in open tank - 41509C/24
*WEIS- 30.04.79 GEBR WEISS KG D16 H09 *DT 2917-459
White peat processing for combustion - 82715C/47
*WEIS- 30.04.79 WEISERT LOSER & SOH D13 *DT 2917-555
Production of filled chewing gum - 82720C/47
WELA 29.03.79 WELLA AG D21 E19 =J5 5130-908
Permanently shaped hair rinsing or strengthening compsn. - 73722C/42
WURT- 06.04.79 WURTTEMBERGI PARFUM D21 E24 #GB 2046-590
Dentifrice powder or paste contg. dye and surfactant - 33519B/18

*YOKK- 30.03.79 YOKKAICH GOSEI KK B05 D23 E17 *J5 5130-929
3,7-Di:methyl-1,6-octa:diene-3-ol prodn. - 83637C/47
*YUAS 27.05.70 YUASA BATTERY CO KK A88 D15 J01 *J8 0041-805
Filter mfr. for treatment of contaminated water - 83760C/47
*YUAS 27.05.70 YUASA BATTERY CO KK A88 D15 J01 *J8 0041-806
Mfr. of filter used for clarifying contaminated water - 83761C/47

*ZAID 01.05.79 ZH BISEIBUTSU KAGAKU KEN B03 D16 *DT 3012-014
Istamycin A,B,AO and BO are antibiotics - 82842C/47
ZAID 01.05.79 ZH BISEIBUTSU KAGAKU KEN B03 D16 =NL 8001-842
Istamycin A,B,AO and BO are antibiotics - 82842C/47
*ZEST- 20.04.79 ZEST INVESTMENTS LT D15 *GB 2046-620
Treatment of effluents contg. alkali metal hydroxide(s) - 83194C/47
*ZLLT- 08.06.77 Z-L LTD PARTN B01 D13 E13 (D16 D21 D23 E15) *US 4232-122
Prepn. of 3-hydroxy-ergosterol - 84283C/47
ZYLI- 06.08.76 ZYLISS-ZYSSET AG D14 =CH -619-608
Citrus fruit juice expeller - 86660Y/49

R

1-R D
1599-364 R49
1225-849 S11
3567-510 S12
-887-978 S51
-368-759 U44
1816-117 C47

S

85-S DE
-755-391 S09
7012-799 S10
2042-585 S11
2059-304 S36
2042-585 S41
3629-408 T04
-515-854 T08
-912-990 T45
1307-125 U07
-162-823 C10
0042-042 C47

T

70-T D
2154-091 T20
7009-738 T21
2110-157 T39
3847-750 V47
1375-190 V48
1375-189 V48
0041-755 C47

77-T AD
-775-476 T21+
7115-391 T23
2156-375 T24
7011-999 T26
7107-695 T36
2114-696 T43
1341-400 U51
-546-543 V17+
-956-537 V45+
--38-123 W15+
3939-849 X10+
-529-803 Y49+
4011-299 B10+
2156-375 C23+
4232-130 C47+

31-T DE
2225-015 T51
2138-902 U12
3742-059 U28
1363-994 V34
-990-737 X26
8000-511 C47
0042-065 C47

U

74-U BD
2303-495 U33
7301-123 U33
-794-467 U33
2169-218 U47
8080-783 V05
3884-759 W22
1423-034 X05
-982-505 X07
0041-756 C47

27-U ADF
-797-279 U50
7304-200 V41
2314-689 V42
7304-056 V47+
7301-859 W02+
2223-385 W04
9128-987 W07
1407-132 W39+
1020-936 Y48+
-603-695 A37+
5130-663 C47+

20-U D
7207-517 U51
2183-605 V07
9023-449 V18
1368-874 V40+
-964-775 W14+
0041-829 C47+

V

11360-V BCD
BE -803-199 V07
NL 7310-751 V08
DT 2336-655 V10
FR 2194-417 V18
ZA 7304-512 V27
DL -107-698 V42
US 3855-212 W01
J5 0105-680 W42
US 3932-397 X04
US 3932-396 X04
US 3944-546 X13
GB 1437-222 X22
GB 1437-221 X22
CH -580-107 X42
AR -203-371 X46
CA 1010-054 Y21
CH -587-239 Y22
CS 7701-590 B09
CS 7305-525 B09
US 4111-978 B13+
CA 1088-518 C47

24818-V D
US 3798-334 V13
GB 1355-175 V23
DT 2310-438 V37
FR 2219-753 V52
CA -995-973 X38
J4 8072-358 C47
J8 0041-747 C47

57627-V D
J4 9059-077 V32
J8 0041-840 C47

74342-V D
BE -813-485 V43+
NL 7405-019 V44+
DT 2417-508 V46+
NO 7401-195 V49+
SW 7404-745 V50+
DK 7402-010 W01+
FR 2225-443 W06
FR 2240-277 W21+
ZA 7402-287 W22
J5 0040-785 W24+
US 3920-521 W49
GB 1428-898 X12+
NO 7601-602 X29+
GB 1456-496 X48+
US 3997-402 X52
OE 7403-067 Y09
US 4029-819 Y25
CA 1023-285 A03
CA 1023-286 A03
DT 2462-631 A09+
SW 7801-041 A24+
OE 7600-666 A26+
DS 2462-631 C14+
CH -619-981 C47
CH -619-731 C47+

74834-V D
J4 9012-047 V43
J8 0041-760 C47

W

33909-W ADF
US 3881-490 W20
DT 2460-712 W27
NL 7416-252 W28
FR 2255-046 W45
ZA 7408-125 X13
BR 7410-060 X24
GB 1480-926 Y30
CA 1031-503 A23
IT 1027-830 B11
DS 2460-712 C47

39724-W AD
DT 2456-638 W24
BE -822-796 W24
NL 7415-582 W25
FR 2252-840 W38
GB 1494-916 Y50
GB 1494-915 Y50
US 4172-887 B45
CA 1086-652 C43
CA 1088-250 C46
CH -619-613 C47

52741-W BCD
DT 2501-788 W32+
BE -824-781 W32+
NL 7500-845 W33+
SW 7500-793 W38+
DK 7500-227 W42+
ZA 7500-039 X13
PT --63-272 X19+
DL -119-790 X28+
J5 1125-069 X51
DL -125-212 Y25
DL -125-213 Y25
DL -125-211 Y25
FR 2333-801 Y37+
GB 1499-582 A05+
J5 1125-069 X51+
OE 7500-426 B18+
CS 7500-448 B33+
CS 7801-231 B33+
CS 7801-232 B33+
CS 7801-233 B33+
CA 1060-899 B36+
IT 1035-548 C05
CH -619-703 C47+
CH -619-704 C47+
CH -619-705 C47+
CH -619-949 C47+

75116-W ABDJ
NL 7504-823 W45
DT 2517-511 W47
SW 7504-411 W50
J5 0146-696 X03
FR 2268-818 X07
CS 7402-879 X47
GB 1467-771 Y12
US 4062-831 Y51
CA 1041-695 A46
IT 1037-561 C09
CH -619-971 C47

75780-W BCD
BE -828-635 W46
NL 7505-246 W47
DT 2519-938 W49
SW 7505-032 W52
J5 0155-685 X04
FR 2269-961 X09
DK 7501-949 X09
US 4013-788 Y13
GB 1502-320 A09
IL --47-205 A28
CA 1037-028 A36
CH -604-725 A41
CS 7503-097 B42
HU T017-211 B45
SU -727-112 C47

X

13329-X D
DT 2531-273 X08
J5 1015-652 X12
FR 2280-321 X21
BR 7504-792 X31
BE -838-365 X35
US 3979-523 X38
NL 7601-538 Y35+
GB 1491-109 Y45
CA 1077-775 C23
CH -619-841 C47+

13330-X DE
DT 2531-338 X08
FR 2278-634 X19
J5 1034-886 X19
GB 1510-018 A19
CA 1048-175 B08
DS 2531-338 C47

13411-X BCDE
DT 2534-162 X08+
NL 7509-027 X08+
FR 2280-391 X21+
J5 1044-671 X22+
CH -588-822 Y29
GB 1491-269 Y45+
CH -596-779 A15
DS 2534-162 A26+
NL -160-707 B31+
US 4220-561 C38+
J5 5129-217 C47+

14895-X BDE
BE -832-181 X09
NL 7509-364 X09
DT 2437-833 X10
DK 7503-556 X19
FR 2281-374 X22
J5 1043-724 X22
J5 2083-508 Y34+
GB 1523-481 A35
US 4160-773 B30
CA 1063-131 B41
IT 1044-019 C22
CH -619-962 C47

16794-X D
US 3939-284 X09
BE -838-043 X33
DT 2603-406 X33
NO 7600-274 X38
SW 7600-909 X42
J5 1104-060 X44
SF 7600-201 X44
FR 2298-959 X49
GB 1526-991 A40
IL --48-890 B29
CA 1066-940 B50
SU -727-110 C47+

31921-X BD
BE -836-085 X18
DT 2552-570 X25
NL 7513-505 X26
SW 7415-229 X30
NO 7503-945 X31
SF 7503-246 X35
J5 1083-595 X36
FR 2293-439 X42
DK 7505-494 X43
ZA 7507-441 Y01
DL -123-316 Y08
US 4028-318 Y24
GB 1488-987 Y42
OE 7509-007 A13
CS 7508-280 A29
CA 1048-998 B10
HU T016-637 B23
IL --48-506 B29
US 4162-941 B33
J7 9031-397 B44
DS 2552-570 C03
CH -619-983 C47

32256-X DF
DT 2449-756 X18+
SW 7511-318 X23
NO 7503-510 X24
SF 7502-846 X31
FR 2288-062 X33
BR 7506-827 X42
DL -121-922 X45
US 3998-732 Y01
OE 7507-993 Y39
CA 1047-411 B07
CH -619-909 C47

39986-X D
BE -837-006 X22
DT 2504-739 X35
FR 2299-817 X50
OE 7509-709 A18
CH -619-844 C47

44043-X BCD
BE -835-921 X24+
US 3960-833 X24+
NL 7513-793 X25+
SW 7513-450 X29+
DT 2553-626 X34+
DK 7505-395 X35+
J5 1082-241 X36+
FR 2292-483 X41+
ZA 7507-456 Y01
J5 2031-052 Y16
GB 1531-016 A44+
CA 1050-536 B15+
CH -619-717 C47+

46431-X D
DT 2554-290 X25
BE -836-212 X25
NL 7514-080 X26
SW 7513-627 X30
DK 7505-459 X36
FR 2293-151 X42
CA 1088-366 C47

49824-X BD
US 3963-573 X26
BE -839-140 X39
NL 7602-187 X39
DT 2608-255 X40
SW 7602-751 X43
DK 7600-878 X48
FR 2302-983 Y02
J5 1142-595 Y04
GB 1529-633 A43
OE 7601-531 B09
CA 1061-268 B37
CH -619-929 C47

49994-X BCD
BE -836-588 X27+
NL 7514-507 X27+
DT 2556-043 X29+
NO 7504-213 X32+
SW 7514-033 X33+
SF 7503-476 X35+
DK 7505-642 X38+
J5 1091-389 X39+
FR 2293-942 X43+
ZA 7507-736 Y01
US 4012-576 Y12+
J5 2057-112 Y25
DS 2556-043 A06+
IL --48-635 A33+
GB 1525-977 A39+
J7 8043-589 A50+
US 4108-725 B11+
HU T016-828 B33+
CA 1060-820 B36+
SU -655-326 C09
DK 7902-544 C10+
CH -619-733 C47+

58759-X ADE
J5 1070-192 X31
J8 0041-639 C47

61708-X BCDE
DT 2503-582 X33
BE -837-970 X33
FR 2299-315 X49
US 4022-815 Y20
GB 1526-481 A39
DS 2503-582 B08
CA 1056-402 B26
CH -619-926 C47

75689-X AD
BE -839-929 X41
NL 7603-166 X42
DT 2612-571 X42
SW 7603-657 X49
DK 7601-294 X51
FR 2305-349 Y04
ZA 7601-793 Y46
GB 1538-428 B09
CA 1063-856 B43
OE 7602-127 C14
CH -619-842 C47

82320-X ABD
NL 7603-818 X44
J5 1118-890 X49
OE 7602-575 Y39
CH -619-716 C47

86334-X BCDE
NL 7603-981 X46
DT 2617-672 X47
SW 7604-330 X50
NO 7601-279 X51
J5 1128-951 X52
DK 7601-725 Y04
FR 2309-511 Y09
PT --65-205 Y21+
OE 7603-360 A02+
GB 1499-056 A04
CA 1083-607 C35
CH -618-957 C39
IL --49-437 C47

90656-X DE
BE -844-193 X49
DT 2608-932 Y04
DT 2609-888 Y04
J5 2012-166 Y10
FR 2317-921 Y17
FR 2318-161 Y17
US 4059-595 Y48
GB 1496-992 A01
GB 1498-365 A03
DS 2609-888 A37
J7 9012-465 B24
CH -617-200 C24
CH -619-700 C47

Y

00046-Y BCD
BE -845-376 Y01
NL 7608-361 Y10
DT 2631-443 Y10
J5 2025-789 Y14
SW 7609-236 Y14
NO 7602-877 Y15
DK 7603-779 Y19
FR 2321-491 Y21
SF 7602-387 Y21
ZA 7603-927 Y26
PT --65-501 Y29
US 4148-808 B17
OE 7605-337 B26
GB 1548-590 B29
CA 1075-705 C18
IL --49-943 C43
CH -619-946 C47

00047-Y BCD
BE -845-377 Y01
NL 7608-424 Y10
US 4010-167 Y10
DT 2631-442 Y10
J5 2025-788 Y14
SW 7609-237 Y14
NO 7602-878 Y15
DK 7603-778 Y19
FR 2321-492 Y21
SF 7602-388 Y21
ZA 7603-861 Y26
PT --65-502 Y29
OE 7605-338 B26
CA 1057-220 B28
GB 1551-783 B36
IL --49-934 B48
CH -619-947 C47

02999-Y DEF
J5 1137-000 Y02
J8 0042-184 C47

07602-Y DH
BE -846-363 Y05
NL 7610-370 Y14
DT 2641-830 Y14
SW 7610-196 Y18
NO 7603-014 Y19
FR 2324-808 Y25
US 4032-438 Y27
GB 1516-602 A27
CA 1065-768 B47
DS 2641-830 C47

07773-Y AD
DS 2545-105 Y05
BE -847-042 Y07
NL 7610-561 Y17
SW 7610-790 Y21
J5 2051-042 Y22
FR 2327-146 Y28
GB 1518-590 A29
CH -619-617 C47

09311-Y DE
BE -844-677 Y06
DT 2634-126 Y07
NL 7608-434 Y08
SW 7608-524 Y11
NO 7602-645 Y12
J5 2031-989 Y16
DK 7603-418 Y16
SF 7602-163 Y16
FR 2319-583 Y19
BR 7604-927 Y34
GB 1525-139 A38
CA 1073-774 C14
J8 0023-207 C29
DS 2634-126 C47

09335-Y BD
BE -844-756 Y06
NL 7608-430 Y08
SW 7608-589 Y11
J5 2018-888 Y12
NO 7602-573 Y12
DT 2633-508 Y15
DK 7603-447 Y16
FR 2319-377 Y19
US 4048-015 Y38
OE 7605-657 A02
ZA 7604-162 Y32
US 4097-428 A35
GB 1539-808 B06
CA 1079-212 C28
CH -619-734 C47

09398-Y DE
BE -844-955 Y06
DT 2535-518 Y09
J5 2022-008 Y13
SW 7608-277 Y14
FR 2320-348 Y20
BR 7605-110 Y33
ZA 7604-730 Y35
US 4127-512 A49
GB 1545-910 B20
CH -619-732 C47

10827-Y BD
US 4005-196 Y06
BE -851-328 Y34+
DT 2705-105 Y34+
NL 7701-460 Y35+
FR 2340-737 Y48+
GB 1579-241 C47+

12818-Y DE
BE -847-191 Y08
DT 2645-793 Y17
NL 7611-455 Y18
SW 7611-201 Y21
NO 7603-483 Y22
SF 7602-931 Y24
J5 2061-293 Y26
DK 7504-640 Y28
FR 2328-044 Y29
PT --65-703 Y42
ZA 7606-065 Y43
US 4165-387 B36
SU -662-017 C04
GB 1567-634 C23
CA 1088-440 C47

13306-Y D
FR 2308-320 Y08
NO 7503-131 X51
US 4036-993 Y30
J5 1125-773 A15
J7 8007-508 A15
CA 1068-542 C03
SU -727-109 C47

15493-Y DM
J5 2007-339 Y09
J8 0041-319 C47

16416-Y BCDE
BE -845-747 Y10
NL 7609-085 Y11
DT 2639-357 Y11
SW 7609-181 Y15
NO 7602-857 Y16
J5 2033-655 Y17
DK 7603-725 Y21
SF 7602-346 Y21
FR 2322-590 Y23
BR 7605-595 Y34
US 4061-775 Y50
PT --65-522 A12
ZA 7605-252 A20
GB 1520-598 A32
OE 7606-493 A44
IL --50-335 C47
CA 1088-569 C47

16636-Y DJ
DT 2537-754 Y10
SW 7607-390 Y14
CA 1085-978 C41
CH -619-910 C47

21822-Y DE
BE -846-394 Y13
NL 7610-535 Y14
DT 2642-089 Y14
J5 2040-489 Y19
FR 2324-722 Y25
US 4081-399 A20
GB 1538-104 B03
CA 1088-538 C47

22182-Y DEH
DT 2640-790 Y13
J5 2034-922 Y17
US 4127-654 A49
GB 1568-994 C24
CH -619-612 C47

23655-Y BCD
BE -848-892 Y14
DT 2652-163 A03
NL 7613-404 A04
SW 7607-389 A06
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J5 3003-512 A08
DK 7605-184 A11
SF 7603-304 A12
FR 2356-430 A14
ZA 7703-259 A20
DL -130-984 A27
PT --66-663 A29
CA 1080-500 C29
GB 1572-718 C31
IL --52-243 C47

25267-Y ACDE
BE -846-982 Y15
DT 2544-606 Y16
NL 7611-040 Y17
FR 2327-254 Y28
US 4092-363 A29
GB 1536-439 A51
CA 1083-179 C34
CH -619-964 C47

25324-Y ADF
BE -849-145 Y15
US 4054-141 Y43
DT 2625-177 Y50
NL 7704-444 Y51
DK 7700-239 A09
FR 2353-277 A12
OE 7608-557 A18
CH -617-846 C29
DS 2625-177 C35
GB 1579-269 C47

30288-Y DJ
NL 7511-990 Y17
BE -853-390 Y32+
DT 2716-117 A44+
J5 3128-574 A50+
FR 2387-068 B03+
US 4162-945 B33+
IL --51-796 C13+
GB 1579-658 C47+

30724-Y DE
US 4018-719 Y17
BE -849-824 Y26
NL 7704-254 Y45
DT 2716-537 Y45
J5 2128-360 Y49
FR 2348-916 A06
GB 1530-433 A44
CA 1067-098 B50
CH -618-344 C34
IL --51-908 C47

31267-Y BD
DT 2646-199 Y18+
J5 2051-030 Y22+
US 4117-107 A40
US 4117-108 A40+
GB 1567-454 C21+
J5 5113-711 C42
CA 1088-429 C47+

32745-Y BD
BE -847-941 Y19
NL 7612-026 Y20
DT 2648-121 Y20
SW 7611-906 Y24
NO 7603-667 Y25
J5 2059-180 Y26
SF 7603-049 Y30
DK 7604-831 Y31
FR 2330-387 Y32
FR 2338-251 Y44
PT --65-791 A12
ZA 7606-340 A29
US 4108-985 B11
IL --50-836 B48
CH -614-931 C02
OE 7608-122 C19
GB 1567-201 C20
GB 1567-202 C21
US 4210-581 C29
CA 1087-609 C45
CH -619-735 C47+

34450-Y BD
BE -848-175 Y20+
NL 7612-680 Y22+
DT 2651-880 Y22+
SW 7612-482 Y25+
FR 2331-567 Y33
J5 2104-591 Y41
FR 2345-459 A03
FR 2363-108 A21+
CA 1083-508 C35+
US 4217-338 C35+
GB 1571-992 C47+
GB 1571-993 C47+

36274-Y BDE
BE 848-635 Y21
NL 7613-588 Y25
DT 2651-128 Y26
J5 2070-056 Y30
FR 2334-303 Y39
ZA 7606-962 Y46
DL -127-751 A06
OE 7609-078 A35
GB 1532-547 A46
IL 50-991 C06
SU 698-516 C28
CH -619-845 C47

39129-Y D
J5 2050-973 Y22
US 4048-240 Y38
J8 0041-344 C47

45309-Y ADE
BE -851-816 Y26
DT 2707-280 Y36
NL 7702-051 Y37
SW 7702-089 Y40
J5 2110-710 Y43
DK 7700-856 Y45
FR 2342-335 Y50
BR 7701-175 A02
PT --66-235 A12
ZA 7701-147 A42
GB 1579-261 C47
GB 1579-262 C47

47023-Y CD
BE 852-064 Y27
DT 2708-818 Y38
NL 7702-348 Y39
J5 2107-975 Y42
DK 7700-788 Y48
FR 2343-431 A01
US 4070-490 A06
CH -600-789 A28
GB 1531-376 A45
CA 1077-770 C23
SU -727-111 C47

50222-Y ADEM
US 4033-896 Y28
BE -855-798 Y51
FR 2355-091 A13
BR 7606-529 A14
GB 1553-156 B38
CA 1088-290 C47

50577-Y D
DT 2600-398 Y29
J5 2085-977 Y35
SW 7614-030 Y36
FR 2337-693 Y45
GB 1542-473 B12
OE 7609-418 B13
CH -619-908 C47

52272-Y D
BE 852-754 Y30
NL 7703-101 Y41
DT 2711-033 Y41
SW 7703-208 Y44
BR 7701-701 Y48
SF 7700-882 Y51
FR 2345-396 A03
ZA 7701-062 A08
US 4111-802 B13
CA 1076-722 C20
GB 1574-370 C36
CH -619-674 C47

52276-Y DEH
BE -852-781 Y30+
NL 7703-533 Y42+
DT 2714-146 Y42+
FR 2346-293 A04
BR 7701-831 A08+
FR 2380-992 A47+
US 4204-842 C23+
CA 1083-058 C34+
GB 1579-656 C47+

52614-Y ABCD
DT 2701-312 Y30+
J5 2089-188 Y36
J5 2090-695 Y36
FR 2338-287 Y44+
GB 1541-511 B10+
US 4146-706 B15+
US 4153-508 B21+
J8 0042-081 C47

58413-Y D
J5 2079-084 Y33
OE 7704-206 A22+
DT 2728-353 B02+
SW 7707-171 B06+
FR 2395-311 B13+
DT 2759-821 C32+
US 4230-806 C46+
GB 1579-632 C47+
GB 1579-633 C47+

59465-Y D
BE -853-851 Y34
NL 7704-215 Y45
DT 2716-442 Y45
SW 7703-016 Y48
J5 2129-710 Y50
DK 7701-776 A03
FR 2360-663 A18
ZA 7701-556 A46
GB 1578-288 C45
CA 1088-398 C47

61188-Y DE
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NL 7902-161 B41+
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DK 7901-124 B45+
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SF 7900-920 B51+
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SW 7902-468 C10+
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CA 1084-804 C38+
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69951-B AD
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NL 7902-232 B42
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FR 2420-966 C03
ZA 7901-117 C47

71732-B D
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73768-B D
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DS 2813-867 C47

73792-B D
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OE 7802-479 B31
GB 2017-672 B41
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FR 2421-848 C04
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US 4231-862 C47

79078-B D
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DK 7904-846 C22
EP --18-366 C47

79418-B AD
EP ---4-986 B44
BR 7902-285 B45
DT 2816-522 B45
J5 4139-881 B49
US 4230-569 C46
ZA 7901-347 C47
EP G004-986 C47

80843-B ADE
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PT --69-576 C24
NL 7903-528 C25
GB 2035-361 C25
J5 5075-496 C30
FR 2442-883 C38
BR 7902-726 C47
US 4231-903 C47

80844-B ADE
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PT --69-575 C24
NL 7903-527 C25
GB 2035-362 C25
J5 5075-497 C30
FR 2442-884 C38
BR 7902-727 C47

81122-B DE
FR 2415-457 B45
BE -877-463 B45
ZA 7902-396 C30+
DT 2917-729 C47+

82521-B DJ
WP 7900-864 B45
SW 7803-691 B46
SF 7901-073 B51
GB 2041-774 C38
EP --18-367 C47

85915-B DJ
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DK 7905-177 C25
US 4210-613 C29
EP --18-374 C47

91399-B ADE
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NL 7904-256 B51
GB 2023-628 C01
SW 7904-701 C04
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BR 7903-478 C05
DK 7902-237 C06
J5 5007-269 C09
FR 2431-501 C18
FR 2438-053 C32
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C

02098-C D
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DK 7902-797 C10
BR 7904-253 C16
BE T000-082 C42+
NL 7815-067 C46+
SW 8006-259 C47+

02227-C D
GB 2023-990 C02
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DK 7901-684 C10
US 4203-335 C22
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BR 7903-125 C47

03746-C D
DT 2829-142 C03
NL 7905-002 C05
BE -877-403 C06
WP 8000-148 C07
EP --18-392 C47

05760-C CDEF
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J5 5013-296 C11
DK 7902-932 C11
PT --69-861 C11
BR 7904-435 C17
ZA 7903-512 C39
CS 7904-828 C47

09269-C DE
DS 2918-422 C06
EP --18-668 C47

09493-C CDEF
DT 2929-920 C06+
J5 5019-229 C12
GB 2030-864 C16+
FR 2433-298 C22+
J5 5129-204 C47

14738-C BD
BE -878-256 C09
NL 7906-214 C10
DT 2933-258 C10
SW 7905-865 C14
J5 5028-982 C15
FR 2433-536 C22
ZA 7903-967 C35
PT --70-060 C36
US 4232-015 C47

14749-C ADEF
BE -879-475 C09+
NL 7907-668 C19+
DT 2942-376 C19+
PT --70-321 C21+
DK 7904-428 C24+
NO 7903-373 C24+
SW 7908-700 C24+
GB 2036-093 C26+
SF 7903-179 C30+
FR 2439-223 C31+
J5 5098-980 C36+
BR 7906-765 C39+
ZA 7905-474 C47

20178-C ABDJ
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EP ---9-396 C15
J5 5047-150 C20
ZA 7904-959 C47

23722-C ADE
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BR 7805-654 B07
EP --18-407 C47

25351-C BDE
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US 4207-214 C25
US 4217-371 C35
US 4231-940 C47

25701-C DE
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BE -879-095 C16
NL 7907-255 C16
GB 2032-900 C20
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BR 7906-203 C31
J5 5095-606 C36
ZA 7905-169 C47

25823-C ABDJ
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J5 5084-543 C32
ZA 7904-960 C47

25824-C ABDJ
EP ---9-395 C15
ZA 7904-961 C47

25825-C ABDJ
EP ---9-397 C15
J5 5047-148 C20+
BR 7905-988 C30+
ZA 7904-962 C47

27368-C BCD
DT 2841-668 C16
EP ---9-688 C16
J5 5048-356 C20
ZA 7905-053 C47

27458-C BDJ
DT 2842-862 C16
J5 5048-643 C20
EP --10-615 C21
ZA 7904-814 C47

27480-C AD
DT 2843-233 C16
BE -879-162 C17
J5 5050-099 C21
GB 2033-914 C22
FR 2438-089 C29
BR 7906-356 C33
ZA 7905-262 C47

27719-C D
EP ---9-914 C16
J5 5042-598 C19
ZA 7904-958 C47

27731-C ADF
EP ---9-941 C16
J5 5057-060 C23
BR 7906-530 C31
ZA 7905-366 C47

28180-C DEJ
J5 5031-428 C16
J8 0041-815 C47

29008-C BDJ
US 4197-088 C16
NL 7812-584 C29+
DT 2853-836 C30+
GB 2040-441 C35+
DT 2857-625 C36+
FR 2444-939 C41+
SW 7812-469 C47+

29649-C ADF
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BE -879-243 C17
NL 7907-415 C17
GB 2032-282 C19
J5 5050-354 C21
DK 7904-172 C22
NO 7903-176 C22
SW 7908-280 C22
BR 7906-450 C24
SF 7903-092 C25
FR 2437-826 C29
US 4217-901 C36
PT --70-281 C47

31238-C DEF
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J5 5053-508 C22
DK 7904-327 C23
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SF 7903-146 C25
BR 7906-546 C27
ZA 7905-459 C47

32165-C ADE
NL 7907-552 C18
BE -879-364 C18
DT 2941-511 C19
GB 2033-959 C22
DK 7904-254 C23
NO 7903-241 C23
SW 7908-473 C23
SF 7903-123 C25
FR 2438-477 C30
J5 5085-512 C33
ZA 7905-463 C47

32622-C DE
US 4199-373 C18
EP --17-778 C45
PT --71-086 C47

34613-C ADEF
BE -879-772 C20
NL 7907-952 C21
DT 2943-754 C21
SW 7909-066 C25
NO 7903-535 C26
J5 5067-305 C27
SF 7903-446 C30
GB 2038-793 C31
FR 2440-216 C33
ZA 7905-887 C47

35022-C CD
DT 2943-021 C20
GB 2035-040 C25
ZA 7905-693 C47

36396-C DEF
US 4201-596 C20
DT 2944-789 C31
J5 5092-699 C35
SW 7903-001 C35
NO 7903-650 C36
GB 2041-376 C37
SF 7903-497 C40
BR 8000-020 C47

38400-C AD
DT 2848-779 C22
EP --11-743 C24
ZA 7906-051 C47

38690-C D
EP --11-402 C22
DK 7904-600 C26
GB 2036-531 C27+
ZA 7905-663 C47

38715-C AD
EP --11-471 C22
WP 8001-041 C23
ZA 7906-091 C47

38767-C D
EP --11-573 C22
PT --70-464 C24
DK 7904-905 C28
FR 2441-586 C36
ZA 7906-069 C47

38904-C AD
J5 5051-494 C22
J8 0041-833 C47

40004-C DEJ
BE -880-008 C23
DT 2850-137 C25
GB 2036-978 C27
FR 2441-845 C36
BR 7907-161 C43
ZA 7906-006 C47

40124-C D
DT 2850-750 C23
PT --70-443 C24
EP --11-953 C24
GB 2036-532 C27
NO 7903-780 C29
SF 7903-428 C34
ZA 7905-746 C47

41509-C D
BE -881-188 C24
DT 2901-509 C30
WP 8001-484 C32
SW 8006-491 C47

41511-C AD
BE -881-202 C24
DT 2950-893 C32
GB 2040-150 C34
NO 8000-106 C36
SW 8000-282 C36
SF 8000-131 C43
FR 2446-638 C45
BR 8000-286 C47

42198-C BD
J5 5057-586 C24
J5 5129-297 C47

43314-C DJM
BE -881-417 C25
PT --70-738 C32
WP 8001-563 C34
SF 8000-250 C43
SW 8006-649 C47

43643-C AD
DT 2946-326 C25
PT --70-315 C21
SW 7909-491 C27
GB 2036-534 C27
FR 2441-344 C36
BR 7907-443 C39
ZA 7905-931 C47

45267-C DEL
DT 2854-107 C26
GB 2037-615 C29+
FR 2444-133 C40+
DS 2854-107 C47

46248-C CD
BE -881-647 C27+
NL 8000-876 C35+
PT --70-817 C36+
DT 3005-020 C36+
J5 5108-259 C40+
DK 8000-579 C40+
SW 8001-062 C40+
GB 2046-567 C47+

46559-C DE
EP --12-178 C27+
J5 5064-578 C26+
BR 7906-997 C30+
ZA 7905-690 C47+
PT --70-393 C47+

46673-C AD
EP --12-499 C27
J5 5085-357 C33
ZA 7905-740 C47

46876-C CD
GB 2036-530 C27
SW 7908-540 C24
J5 5058-071 C24
US 4232-046 C47

48398-C D
DT 2950-776 C28+
FR 2444-712 C41+
GB 2046-782 C47+

51669-C DEF
US 4210-764 C29
EP --18-463 C47

51841-C CD
DT 2900-591 C30
EP --13-766 C33
J5 5094-310 C35
DK 8000-083 C36
BR 8000-094 C47

51931-C D
DT 2951-743 C30
BE -880-991 C30
NL 7909-272 C30
GB 2038-654 C31
DK 8000-041 C35
FR 2445-700 C43
US 4230-733 C46
BR 8000-024 C47

53712-C BD
DT 3001-300 C31
BE -881-154 C31
NL 8000-249 C31
J5 5098-110 C36
FR 2446-634 C45
GB 2046-591 C47

53808-C ADE
EP --13-491 C31+
PT --70-659 C32+
NO 8000-026 C34+
J5 5092-707 C35+
SF 8000-034 C40+
DK 8000-046 C46+
BR 8000-046 C47+

55160-C BCDE
US 4212-860 C31+
US 4231-945 C47

55233-C BD
BE -881-322 C32
DT 3002-836 C33
NL 8000-671 C34
FR 2447-874 C47
GB 2046-845 C47

56903-C AD
BE -881-469 C33
NL 7900-831 C34
DT 3002-913 C34
GB 2040-667 C36
SW 8000-479 C38
DK 8000-419 C39
FR 2447-677 C47

56904-C BCDF
BE -881-476 C33
DT 3003-497 C34
J5 5104-298 C38
SW 8000-786 C38
GB 2042-501 C39
FR 2447-931 C47

57074-C D
DT 2904-138 C33
NL 8000-466 C34
FR 2447-888 C47

57193-C BD
DT 3003-191 C33
GB 2040-313 C35
FR 2448-152 C47

57202-C D
DT 3003-305 C33
NL 8000-597 C33
NO 8000-227 C38
SW 7900-813 C38
DK 8000-403 C39
GB 2042-895 C40
SF 8000-275 C43
FR 2447-722 C47

57208-C DE
DT 3003-494 C33
BE -881-464 C34
GB 2041-964 C38+
FR 2447-963 C47
J5 5129-499 C47

57209-C D
DT 3003-513 C33
NL 8000-654 C34
GB 2041-224 C37
NO 8000-222 C38
SW 7900-938 C38
FR 2447-686 C47

57222-C D
DT 3004-144 C33
BE -881-517 C34
GB 2041-757 C38
FR 2447-714 C47

57362-C AD
EP --14-083 C33+
J5 5127-413 C46+
BR 8000-357 C47

58767-C D
BE -882-567 C34
DT 3011-293 C44
GB 2045-614 C45
SW 8002-434 C47

58788-C DE
BE -882-672 C34
NL 8002-069 C44
DT 3011-015 C45
GB 2046-568 C47

59043-C AD
DT 3002-864 C34
J5 5102-653 C38
GB 2042-572 C39
FR 2447-947 C47

59054-C DE
DT 3003-457 C34+
NL 8000-662 C34+
J5 5104-223 C38+
GB 2041-935 C38+
FR 2447-917 C47+

59058-C AD
DT 3003-493 C34
BE -881-463 C34
NL 8000-387 C34
GB 2042-890 C40+
J5 5127-314 C46
FR 2447-718 C47

59060-C DE
DT 3003-518 C34
GB 2046-592 C47

59064-C BD
DT 3003-727 C34
GB 2042-211 C38
US 4221-867 C39
FR 2447-964 C47

59077-C BD
DT 3003-959 C34
BE -881-557 C34
NL 8000-698 C34
J5 5104-896 C39
SW 8000-843 C39
GB 2043-245 C40
FR 2447-966 C47

59850-C BD
NL 8000-627 C34
J5 5104-297 C38
GB 2042-502 C39
FR 2447-932 C47
DT 3003-359 C47

59851-C BD
NL 8000-628 C34+
PT --70-710 C32+
BE -881-509 C36+
J5 5104-296 C38+
DK 8000-125 C39+
GB 2042-532 C39+
SW 8000-842 C43+
FR 2447-922 C47+

60456-C DE
US 4216-342 C34
EP --17-141 C44
J5 5130-931 C47

60520-C CDEH
BE -882-719 C35
NL 8002-122 C44
DT 2914-802 C45
GB 2046-725 C47

60881-C DE
EP --14-509 C35
J5 5129-216 C47

60906-C BCDE
EP --14-567 C35+
PT --70-744 C32+
BE -881-425 C37+
GB 2041-374 C37
NL 8000-545 C38+
J5 5104-289 C38
US 4223-133 C40
J5 5113-789 C42+
GB 2044-256 C42+
SF 8000-303 C43+
US 4226-986 C43
FR 2447-924 C47+
FR 2447-926 C47

62039-C D
US 4216-711 C35
DT 3014-727 C47

62276-C BD
BE -881-825 C36
NL 8001-041 C36
DT 3006-216 C37
J5 5111-790 C41
NO 8000-451 C41
DK 8000-730 C42
SW 8001-339 C43
GB 2046-737 C47

62780-C ADE
DT 3006-983 C36
J5 5113-741 C42
GB 2046-735 C47

64094-C BDE
US 4218-442 C36
BE -882-507 C42
DT 3012-132 C42
J5 5130-968 C47

64607-C D
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J5 5102-427 C37
US 4231-974 C47

64805-C CD
GB 2041-403 C37+
J5 5104-862 C39
BR 8000-274 C47

65926-C BD
US 4219-643 C37
BE -882-509 C42
DT 3012-208 C42
J5 5130-997 C47

65967-C ADJ
BE -883-083 C38
NL 8002-466 C47
DT 2918-027 C47

65987-C BD
BE -883-161 C38
DT 3011-334 C47

67979-C DJ
DT 2910-625 C39
GB 2046-610 C47

67991-C D
DT 3003-983 C39
NL 8000-822 C40
J5 5124-462 C45
BR 8000-711 C45
US 4232-052 C47

68044-C BDE
DT 3008-668 C39
J5 5118-369 C43
GB 2046-757 C47

69427-C ADE
US 4221-659 C39
DT 3011-588 C42
GB 2046-237 C46
J5 5129-185 C47

69556-C D
ZA 7902-698 C39
ZA 7902-698 C30
DL -143-201 C42+
GB 2046-578 C47+

69839-C AD
DT 2908-436 C40
GB 2046-772 C47

70021-C D
DT 3008-674 C40
NL 8001-547 C40
DK 8001-135 C45
SW 8001-814 C45
GB 2046-569 C47

70061-C BDE
DT 3009-875 C40
BE -882-216 C40
NL 8001-528 C40
DK 8001-106 C45
NO 8000-748 C45
SW 8002-013 C45
GB 2046-743 C47

71715-C CDE
DT 2911-208 C41
PT --70-986 C41
EP --17-011 C44
DK 8001-248 C46
NO 8000-819 C46
J5 5129-206 C47

71735-C D
DT 2911-401 C41
GB 2045-278 C44
BR 8000-908 C46
J5 5131-100 C47

71801-C DJ
DT 3002-417 C41+
NL 8001-303 C42+
SW 8000-739 C46+
GB 2046-609 C47+

71877-C CDE
DT 3011-504 C41
J5 5129-255 C47
GB 2046-745 C47

73451-C ABD
BE -882-476 C42
NO 8000-901 C46
SW 8002-357 C46
GB 2046-209 C46
DK 8001-305 C47

73458-C BD
BE -882-545 C42
NL 8001-895 C43
DT 3012-303 C43
SW 8002-475 C47

73461-C BCD
BE -882-574 C42
NL 8001-868 C43
DT 3012-565 C44
NO 8000-967 C47

73479-C BD
BE -882-632 C42
NL 8001-982 C43
DT 3013-246 C43
GB 2045-231 C44+
PT --71-064 C47

73722-C DE
DT 2912-427 C42
J5 5130-908 C47

73841-C CDE
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NL 7902-506 C42
GB 2046-748 C47

73853-C DEM
DT 3011-650 C42
NL 8001-819 C42
J5 5128-552 C47

73888-C BCDE
DT 3012-209 C42+
BE -882-501 C42+
J5 5130-969 C47+

75421-C AD
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EP --17-120 C44
DK 8000-898 C47

75495-C BCDE
DT 2913-728 C43
EP --18-493 C47

76328-C CD
NL 8002-026 C43
DT 3013-536 C44
GB 2046-570 C47

77067-C BD
BE -882-841 C44
NL 8002-108 C45
PT --71-107 C47
GB 2046-759 C47

77176-C CDE
DT 2914-090 C44
EP --18-504 C47

77177-C DE
DT 2914-101 C44
GB 2046-606 C47

77338-C CD
DT 3014-975 C44
BE -882-822 C44
NL 8002-290 C45
PT --71-114 C47

77474-C ADG
EP --17-401 C44
GB 2046-774 C47+

77575-C ABCD
EP --17-639 C44
NO 8000-934 C47
SW 7902-893 C47

78918-C DE
BE -882-925 C45
NL 8002-364 C46
DT 3016-109 C46
PT --71-149 C47

79208-C DE
EP --17-827 C45
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NO 8000-874 C47

79272-C BD
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BE -882-964 C45
DT 2916-433 C47

79281-C BCDE
EP --18-019 C45
SF 8000-380 C43
J5 5129-205 C47

79313-C ADFG
EP --18-086 C45
J5 5129-432 C47

79316-C ADG
EP --18-093 C45
GB 2046-773 C47+

79381-C BD
EP --18-218 C45+
WP 8002-229 C46+
PT --71-111 C47+

80122-C BD
NL 8002-210 C45+
PT --71-091 C47+

80648-C D
US 4229-487 C45
NL 8002-537 C47

80714-C DEJ
BE -883-046 C46
NL 8001-823 C47

80976-C CD
DT 2915-762 C46+
EP --18-534 C47

80987-C CDE
DT 2916-318 C46
EP --18-492 C47

81052-C D
DT 2917-086 C46
EP --18-604 C47

81062-C ABCD
DT 2917-272 C46
EP --18-558 C47

81076-C AD
DT 2917-446 C46
EP --18-496 C47

82635-C BDJ
BE -883-099 C47

82639-C AD
BE -883-107 C47

82646-C D
BE -884-216 C47

82658-C D
BE -884-264 C47

82659-C AD
BE -884-265 C47

82662-C ADG
BE -884-287 C47

82669-C BD
BE -884-323 C47

82673-C D
CA 1088-364 C47

82674-C ADE
CA 1088-428 C47

82680-C D
CH -619-675 C47

82682-C BCD
CH -619-698 C47

82685-C D
CH -619-871 C47

82713-C D
DT 2917-376 C47

82715-C DH
DT 2917-459 C47

82720-C D
DT 2917-555 C47

82765-C D
DT 2918-049 C47

82774-C D
DT 2918-167 C47+

82775-C DE
DT 2918-168 C47

82810-C DJ
DT 2918-820 C47

82813-C D
DT 2918-899 C47

82814-C D
DT 2918-971 C47

82819-C D
DT 2919-199 C47

82821-C DE
DT 2919-283 C47

82823-C D
DT 2919-532 C47

82833-C BD
DT 2938-807 C47

82842-C BD
DT 3012-014 C47+
NL 8001-842 C47+

82874-C BDJ
DT 3016-391 C47

82875-C AD
DT 3016-433 C47

82886-C D
DT 3016-707 C47+

82930-C D
EP --16-887 C47
PT --70-631 C47
PT --70-632 C47

82936-C ADE
EP --18-433 C

82937-C D
EP --18-441 C

82938-C DM
EP --18-450 C

82943-C ADE
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82955-C ABDF
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82971-C BCD
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82972-C BCD
EP --18-580 C4
PT --71-170 C4

82981-C BCDE
EP --18-595 C4

82985-C D
EP --18-607 C4

82991-C DE
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82993-C ABD
EP --18-628 C4
DT 2917-999 C4

82995-C ADE
EP --18-630 C47

83010-C AD
EP --18-678 C47

83011-C DE
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*626 84047C B05D21
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SW 8003
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ZA 7903
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=962 25825C A91B07D15J01

ZA 7905
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=262 27480C A97D18
=366 27731C A96D22F04P3
=459 31238C C03D22E14F09P6
=463 32165C A96D21E19
=474 14749C A60D21E16F06
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=693 35022C C03D13
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